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CONTENTS.

PART I.--CLIMATOLOGY.

1. Climatological Summaries, Tables, Maps. } Complete for each district; also issued as separates.
2. Papers on climatology in relation to agriculture, transportation, water resources, etc.

PART II.—METEOROLOGY.

3. Weather, forecasts and warnings for the month.
4. Rivers and floods.
5. Special papers on general meteorology.

PART III.—GENERAL TABLES AND CHARTS.

6. General Tables.
   - I. Climatological data for U. S. Weather Bureau stations.
   - II. Accumulated amounts of precipitation.
   - III. Data furnished by the Canadian Meteorological Service.

PART III.—GENERAL TABLES AND CHARTS—*Continued.*

7. General Charts.
   - I. Hydrographs of several principal rivers.
   - II. Tracks of centers of high areas.
   - III. Tracks of centers of low areas.
   - IV. Temperature departures from the normal.
   - V. Total precipitation.
   - VI. Percentage of clear sky between sunrise and sunset.
   - VII. Isobars and isotherms at sea level; prevailing winds.
   - VIII. Total snowfall.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT NO. 1, NORTH ATLANTIC STATES.

WILFORD M. WILSON, District Editor.

GENERAL SUMMARY.

The weather conditions characterizing the month of February, 1911, were very dissimilar in different parts of the district. Abnormally low temperatures prevailed in the extreme north, and unusually high temperatures in the south. However, the conditions in nearly all sections were quite favorable to the leading industries and to the general interests of the population. In the northern part of the district the prevailing cold weather kept the roads in good condition, while the thick snow cover was beneficial to farmers and lumbermen. In the southern part of the district, where the weather was unusually mild, there was an excellent opportunity for agriculturists to plow and to do other outdoor work in preparation for the crop-growing season. No severe storms occurred within the month and there were no floods, although but little snow remained on the ground unmelted at the end of the month, except in northern New York and New England. There was a general deficiency of precipitation after the close of the first decade. Precipitation occurred with considerable regularity throughout the central part of the district, but in the extreme northern and southern States there was a dry period of eight days or more at the last of the month.

TEMPERATURE.

The average temperature for the district was about 31°, which is more than 2° above the normal, and the means ranged from 7.4° at Presque Isle in northern Maine to 43° at Eastville, Va. The temperatures recorded in different parts of the district showed contrasts such as are very seldom observed. At Staunton, Va., the highest temperature on the 2d was 71°, while at Presque Isle, Me., it was only 4°; the lowest temperatures at these stations on the same day were respectively 32° and −18°, and the mean minimum temperatures for the month, 28.5° and −6.2°. At several stations in Maine the mean temperature was nearly 5° below the normal, but near the western limit of the district from West Virginia to New York it ranged from 6° to 10° or more above the normal. At Addison, N. Y., the mean temperature was higher than that for any February since 1891, except in 1909, and the minimum temperature for the month, 6°, was the highest for any February in the past 21 years. Likewise at the stations in West Virginia the average temperature was the highest on record for February, except in 1909, and the minimum temperatures were unusually high.

Generally speaking, cold but very changeable weather characterized the month in Maine, New Hampshire, and Vermont; moderate conditions prevailed in New York, southern New England, New Jersey, and Delaware, and the remainder of the district experienced an unusually warm February, with practically no cold waves and less than the usual variability in temperature.

Periods of severe cold occurred in northern New England on the 1st–3d and 13th–15th, and brief cold waves caused night temperatures near zero or below from Connecticut and southern New York northward on a few other dates, particularly the 6th and 20th.

The lowest temperatures recorded during the month occurred at most stations in the northern half of the district about the 6th or 16th, and in the Southern States on the 21st or 22d. Temperatures of from 20° to 30° below zero occurred in many parts of Maine, New Hampshire, and Vermont on several dates, and southward to Pennsylvania the lowest temperatures of the month ranged generally from about zero to 10° below zero. In the vicinity of New York City, on Long Island, and along the coast of Connecticut the lowest temperatures did not, as a rule, fall below 10°. The lowest temperature recorded in Maryland was 11°, in Delaware 17°, West Virginia 9°, and in Virginia 11°.

The maximum temperatures were not unusual in any part of the district and did not exceed 76° in Virginia or 70° in any other State, except Maryland. The highest in New York was 57°, and 58° was the highest in New England.

The most notable warm period extended from the 25th to the 27th, inclusive, but warm days occurred throughout the district about the 3d and 17th, many stations recording the highest temperature of the month on one of these dates. In most parts of the district, however, the highest temperatures occurred on the 26th.

PRECIPITATION.

The average precipitation for the district was only 2.08 inches, which is more than 1 inch less than the normal, and about the same amount less than the average for February, 1910. The deficiency was quite uniform in all parts of the district, except over western New York and a small adjacent area in Pennsylvania, where there was a marked excess. At Haskinville, Steuben County, N. Y., the total precipitation exceeded the normal by 1.82 inch. None of the stations in Rhode Island, Connecticut, New Jersey, Maryland, Delaware, West Virginia, or Virginia reported precipitation equal to the normal; in Pennsylvania only 3 stations reported more than the February average, in New York 11, and in Maine, New Hampshire, Vermont, and Massachusetts, 1 each. The deficiency in precipitation was greatest in Maryland and Delaware, where it averaged 1.58 inch.

The precipitation was least in West Virginia, central Pennsylvania, and the middle Hudson Valley, where considerable areas received not more than 1 inch during

the month. However, the streams maintained nearly moderate stages throughout the month, and the ground was kept well supplied with moisture by the frequent light rains and snows and the occurrence of several periods of thawing weather. Only 6 stations in the district reported a total of more than 4 inches, of which 2 stations were in Maine, 1 in Vermont, 2 in New York, and 1 in New Jersey. The greatest amount recorded at any station was 7.49 inches at Newcomb, Essex County, N. Y., and the least was 0.40 inch at Franklin, Pendleton County, W. Va.

Over the greater part of the district more than half of the precipitation occurred within the first 8 days, the storm of the 3d–4th being by far the most important of the month, though it was not of extraordinary character. This storm moved across the middle Rocky Mountain States on the 2d and up the Ohio Valley on the 3d, reaching the lower lake region on the morning of the 4th. It caused heavy rains and thunderstorms over the coast region from southern New Jersey to New Hampshire, the precipitation over this area ranging generally from 1 to 2 inches. At Westboro, Mass., 2.20 inches of rain fell on the 3d, which is the only instance for the entire month of 2 inches or more precipitation occurring within 24 hours. In practically all sections, except over the coast region, the greatest daily precipitation was less than 1 inch. The temperature on the 4th was sufficiently high to cause rain over probably three-fourths of the entire district, but snow fell throughout the mountainous sections of the Northern States. On the 7th and 8th there was an extensive snowstorm, and moderately heavy rain or snow was general over the district on the 17th and 20th. Light and scattered precipitation occurred on several other dates, but there was none later than the 20th, except small amounts in some localities of the central part of the district.

SNOWFALL.

The greatest amounts of snow fell in northern New York and the central portions of Vermont and New Hampshire, where several stations recorded more than 30 inches. At Morehouseville, Hamilton County, N. Y., 55 inches of snow fell during the month. In Maine the average snowfall exceeded 20 inches, in New York it was about 17, in Pennsylvania 12, and in Virginia only about 3 inches. As far south as northern Massachusetts and central New York there was a permanent snow cover of considerable depth, there being from 20 to 30 inches of snow on the ground at the end of the month over much of Maine, New Hampshire, Vermont, and the Adirondack Mountain region. In the southern half of the district most of the snow that fell remained unmelted only for short periods.

The principal snowstorms occurred on the 2d, the 6–8th, and the 20th. The first of these storms was the heaviest of the month in northern New England, and produced a depth of 6 to 14 inches in that region. The storm of the 6–8th consisted of a succession of low areas moving northeastward over the district, and brought heavy snow to nearly all sections. Only in Virginia was the average snowfall from this prolonged period of stormy weather less than 3 inches; the amounts increased northward and generally exceeded 6 inches in New York and the New England States. At Spier Falls, Warren County, N. Y., 13 inches of snow fell during this storm. The storm of the 20th moved northeastward from the Gulf States, and the northeasterly winds it caused were peculiarly favorable to the occurrence of heavy snows in the Middle Atlantic States. Hence the snowfall of that date was more evenly distributed, the average amounts for each State in the district being not far from 3 or 4 inches.

RIVER CONDITIONS.

The river stages averaged somewhat lower than in any February for several years. The most important features of the river conditions were the uniformity of the stages and the remarkable freedom from ice gorges. In most parts of the district the streams on various dates fell to a stage as low as had been observed in February for 5 to 10 years, but in no case was there a near approach to the low-water mark of the summer months. The highest gage readings indicated only moderate stages, and there was no record of a rapid rise in any of the principal streams.

SUNSHINE.

The average amount of sunshine for the district during February, 1911, was 140 hours, which is nearly equal to the average for the same month in recent years. There was remarkable uniformity in the total amount of sunshine throughout the district, there being an excess in the Northern States as compared with the normal, and a considerable deficiency in the southern part of the district, particularly along the New Jersey coast. At Atlantic City the total amount of sunshine was the least received in any February for 15 years.

There was much more sunshine in February than in the preceding month, which comprised three more days. The greatest number of hours of sunshine for the month was 161 at Portland, Me., and the least was 117 at Eastport, Me., while the percentages of the possible sunshine at these stations were respectively 55 and 40.

The average number of days with 80 per cent or more of the possible sunshine was 8, and the average number with 20 per cent or less was 11. There was an average of 9 days with 0.01 inch or more of precipitation, 9 clear, 7 partly cloudy, and 12 cloudy days.

TABLE 1.—*Climatological data for February, 1911. District No. 1, North Atlantic States.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Maine.																				
Bar Harbor	Hancock	20	25	17.8	− 4.8	47	4†	− 8	13	39	4.14	− 0.15	1.30	29.0	6	15	5	8	nw.	William Miller.
Cornish	York	778	56	18.6	− 2.8	55	27	−20	6	65	3.46	− 0.16	1.10	29.5	7	11	6	11	nw.	T. H. West.
Eastport	Washington	53	39	16.9	− 4.5	45	27	− 5	6	35	2.47	− 1.15	0.80	17.1	9	5	12	11	w.	U. S. Weather Bureau.
Ellsworth	Hancock	.....	1	14.1	.....	46	28	−15	14	42	3.07	.....	1.20	23.5	9	15	3	10	w.	S. P. Sutton.
Fairfield	Somerset	90	26	14.6	− 3.5	45	16	−21	6	59	2.19	− 0.73	0.68	20.2	6	12	7	9	.....	Edw. F. Parker.
Farmington	Franklin	450	14	14.6	− 2.9	46	16†	−18	15	63	2.06	− 2.08	0.78	25.5	10	11	7	10	nw.	State Normal School.
Gardiner	Kennebec	163	19	16.8	− 3.1	53	27	−17	16	63	2.51	− 1.65	1.10	18.0	11	16	0	12	nw.	Samuel D. Soule.
Greenville	Piscataquis	1,000	7	9.9	.....	37	27	−17	14	37	2.68	.....	1.60	26.8	8	.....	.....	.....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	9	13.2	.....	38	5†	−26	15	47	0.85	.....	0.25	12.0	6	22	4	2	w.	Bangor & Aroostook R. R.
Lewiston	Androscoggin	185	37	16.4	− 3.5	48	27	−13	16	60	2.69	− 1.62	1.00	24.7	8	12	6	10	nw.	Union Water Power Co.
Madison	Somerset	257	8	10.2	.....	43	28	−24	15†	55	1.77	.....	0.63	20.0	7	19	1	8	nw.	Wm. Jardine.
Millinocket	Penobscot	386	8	12.2	.....	42	27	−25	14	50	1.96	.....	0.80	14.5	7	11	6	11	nw.	H. S. Ferguson.
North Bridgton	Cumberland	450	18	18.7	− 0.7	56	16	−10	1†	66	2.56	− 2.42	1.65	24.5	9	10	8	10	n.	G. E. Chadbourne.
Orono	Penobscot	129	42	14.6	− 4.6	45	26†	−22	14	54	2.78	− 1.15	0.90	24.5	8	12	6	10	nw.	Agricultural Exp. Station.
Patten	....do	550	9	10.8	.....	40	27	−23	14	43	1.47	.....	0.60	14.6	7	14	6	8	w.	Bangor & Aroostook R. R.
Portland	Cumberland	99	40	19.2	− 4.6	48	27	0	6	37	5.02	+ 1.37	1.62	31.6	12	13	3	12	n.	U. S. Weather Bureau.
Presque Isle	Aroostook	.....	1	7.4	.....	42	27	−29	14	42	1.02	.....	0.35	10.2	8	18	2	8	w.	San Lorenzo Merriman.
Rumford Falls	Oxford	505	18	15.2	− 3.0	42	27	−16	15	38	2.58	− 2.13	0.94	27.4	7	19	2	7	nw.	Chas. A. Mixer.
Winslow	Kennebec	90	16	17.2	.....	46	16	−17	6	58	1.40	.....	0.50	11.0	5	16	4	8	w.	Hollingsworth & Whitney Co.
New Hampshire.																				
Alstead Center	Cheshire	1,120	7	18.0	.....	45	27	− 7	6	27	1.98	.....	0.68	24.0	9	12	3	13	nw.	Frank Dewing.
Benton	Grafton	.....	1	15.3	.....	49	26	−10	6	37	1.90	.....	0.36	17.5	13	9	10	9	nw.	N. H. State Sanatorium.
Bethlehem	....do	1,470	19	13.9	− 3.5	46	26	−15	6	40	1.69	− 2.20	0.65	14.0	7	11	7	10	sw.	Benj. Tucker.
Concord	Merrimack	350	51	20.0	− 3.6	52	26	− 9	16	51	3.02	− 0.26	0.93	21.3	11	9	6	13	nw.	U. S. Weather Bureau.
Durham	Stafford	88	16	21.2	− 3.5	51	27	− 4	6	42	1.89	− 2.13	1.08	18.5	7	12	4	12	nw.	Agricultural Exp. Station.
Franklin	Merrimack	440	12	19.8	.....	49	26	−10	15	41	2.86	.....	0.85	32.5	10	13	4	11	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	25	17.0	− 1.2	48	26	−20	15	44	2.15	− 2.18	0.86	26.0	10	13	4	11	nw.	P. R. Kimball.
Hanover	....do	603	77	16.9	− 2.2	51	26	−19	6	50	3.08	+ 0.68	1.12	29.6	13	6	8	14	nw.	Dartmouth College.
Keene	Cheshire	506	26	20.8	− 1.8	53	26	−13	16	54	1.78	− 1.54	0.55	18.0	11	12	4	12	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	26	21.8	− 2.2	54	26	−12	16	52	2.71	− 1.50	1.23	16.0	9	.....	.....	.....	.....	Jackson Co.
Newton	Rockingham	.....	23	20.9	− 3.4	53	26	− 5	16	51	2.67	− 0.93	1.41	17.0	7	9	12	7	nw.	W. C. Gale.
Plymouth	Grafton	500	23	17.6	− 0.3	45	26	−18	15	39	2.67	− 0.96	0.93	38.2	9	13	1	14	w.	Mrs. Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	4	11.4	.....	43	26†	−32	6	56	1.50	.....	0.45	21.5	13	9	10	9	s.	Lyman Falls L. & P. Co.
Cavendish	Windsor	910	8	17.2	.....	52	26	−13	6	49	2.38	.....	0.93	22.0	7	13	3	12	w.	Miss M. A. Kingsbury.
Chelsea	Orange	830	16	15.0	− 3.8	50	26	−24	6	48	2.21	− 1.27	0.70	28.0	8	10	5	13	n.	W. F. Dewey.
Jacksonville	Windham	1,000	26	15.2	− 4.5	50	25	−16	16	42	5.06	+ 0.15	1.35	39.3	14	8	14	6	ne.	Miss Martha French.
Manchester	Bennington	980	12	19.8	.....	50	26	− 9	16	35	0.67	.....	0.35	11.0	4	7	10	11	sw.	N. M. Canfield.
St. Johnsbury	Caledonia	711	18	14.7	− 2.5	46	27	−27	6	48	2.29	− 0.34	0.74	23.7	13	11	8	9	n.	Fairbanks Museum.
Woodstock	Windsor	700	19	14.2	− 3.2	49	26	−22	6†	51	2.50	− 0.72	0.80	37.5	7	10	4	14	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	22	22.8	− 2.1	52	25	− 3	16	44	2.18	− 1.10	0.94	10.8	8	9	5	14	nw.	Agricultural Exp. Station.
Blue Hill	Norfolk	640	26	23.6	− 2.0	52	26	1	6	32	3.20	− 1.00	1.00	23.3	16	9	6	13	nw.	Blue Hill Observatory.
Boston	Suffolk	124	41	27.0	− 1.0	56	26	4	6	30	2.85	− 0.59	0.95	19.5	10	9	5	14	nw.	U. S. Weather Bureau.
Chestnut Hill	....do	124	31	25.8	− 1.5	56	26	− 2	16	44	3.43	− 0.64	0.94	19.8	10	14	5	9	.....	Metropolitan Water Board.
Clinton	Worcester	370	15	22.9	.....	54	26	− 1	15	38	2.81	.....	1.15	15.2	11	.....	.....	.....	.....	Do.
Concord	Middlesex	139	21	22.1	− 2.2	56	26	−11	16	55	2.54	− 0.98	1.31	11.0	11	7	8	13	nw.	Fred A. Tower.
Fall River	Bristol	200	45	27.1	− 1.5	50	26	4	6	30	1.81	− 2.84	0.50	14.8	10	8	10	10	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	28	23.4	− 0.7	56	26	2	6	41	2.11	− 2.01	0.80	13.5	8	15	3	10	ne.	Dr. A. P. Mason.
Framingham	Middlesex	160	31	25.2	− 1.5	56	26	− 6	16	47	2.64	− 1.70	1.14	12.2	12	.....	.....	.....	.....	Metropolitan Water Board.
Hyannis	Barnstable	31	20	28.6	− 1.7	49	27	11	16†	23	3.16	− 0.61	1.08	20.5	13	12	5	11	nw.	C. F. Sleeper.
Lawrence	Essex	51	27	22.0	− 2.6	53	26	− 6	16	50	2.80	− 1.20	1.36	16.2	10	7	13	8	nw.	Essex Co.
Lowell	Middlesex	100	26	24.8	− 0.3	53	27	− 5	16	50	2.88	− 0.79	1.37	.....	9	.....	.....	.....	.....	Prop's Locks and Canals.
Middleboro	Plymouth	53	25	26.3	− 1.5	54	26	− 6	16	46	2.77	− 1.60	1.30	14.0	9	6	5	17	w.	A. R. Gurney.
Monson	Hampden	420	27	24.0	− 0.2	56	26	− 4	16	30	2.45	− 1.87	1.20	12.0	8	14	5	9	nw.	Dr. G. E. Fuller.
Nantucket	Nantucket	15	25	30.3	− 2.3	48	4	15	22	20	3.88	+ 0.77	0.98	19.7	12	11	4	13	w.	U. S. Weather Bureau.
Norfolk	Norfolk	244	8	24.9	.....	54	26	−14	16	54	3.66	.....	1.37	17.5	9	15	5	8	nw.	Miss Ruby H. Martyn.
Northampton	Hampshire	205	3	24.4	.....	44	18†	− 7	16	47	2.18	.....	1.11	10.0	6	11	3	14	ne.	D. E. Hoxie.
Plymouth	Plymouth	.....	26	26.0	.....	52	27	5	6	32	3.07	.....	0.90	21.0	9	10	0	18	.....	Miss L. B. Knapp.
Provincetown	Barnstable	40	24	28.4	− 0.8	46	27	12	1	19	2.10	− 1.06	0.60	13.8	9	14	0	14	nw.	Gideon Bowley.
Rockport	Essex	25	9	27.0	.....	48	26	8	6	28	3.67	.....	1.04	12.5	7	10	7	11	nw.	C. F. B. Bearse.
Rutland	Worcester	1,160	9	20.9	.....	52	26	− 2	5	32	2.36	.....	0.72	12.3	12	11	5	12	sw.	State Sanatorium.
South Egremont	Berkshire	764	9	21.6	.....	48	26	− 6	16	36	.....	.....	.....	.....	.....	10	3	15	.....	Roscoe C. Taft.
Turners Falls	Franklin	200	20	23.4	− 0.7	48	26	− 6	16	38	2.26	− 0.17	0.75	14.2	8	.....	.....	.....	.....	Turners Falls Co.
Westboro	Worcester	298	37	26.4	− 0.2	55	26	− 4	16	48	3.56	− 0.77	2.20	15.6	11	.....	.....	.....	.....	G. S. Newcomb.
Williamstown	Berkshire	711	20	22.2	+ 0.1	48	26	− 8	16	34	0.75	− 1.81	0.20	15.0	10	3	12	13	w.	Williams College.
Worcester	Worcester	518	19	24.0	− 1.0	52	26	5	15†	32	2.21	− 2.29	1.19	16.9	8	10	5	13	ne.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	31	29.4	− 1.8	50	4	13	6	17	2.01	− 2.08	0.65	11.6	10	11	5	12	nw.	U. S. Weather Bureau.
Bristol	Bristol	53	25	27.6	− 2.1	46	4†	8	6	26	2.33	− 1.61	0.75	15.0	9	13	3	12	nw.	N. G. Herreshoff.
Kingston	Washington	250	22	25.2	− 2.7	52	26	3	16	37	2.36	− 2.94	0.62	15.5	8	14	3	11	w.	Nathaniel Helme.
Narragansett Pier	Newport	22	29	27.4	− 1.6	50	27	6	16	34	2.32	− 2.25	0.56	15.2	9	14	2	12	w.	U. S. Weather Bureau.
Providence	Providence	182	7	26.2	− 2.8	49	4	6	6	33	2.38	− 1.06	0.79	14.0	9	8	7	13	nw.	Do.
Connecticut.																				
Bridgeport	Fairfield	20	18	29.2	.....	52	25	4	22	38	3.26	.....	1.63	16.8	11	9	8	11	nw.	Wm. Jennings.
Canton	Hartford	900	50	24.6	+ 1.0	54	26	− 5	16	47	2.44	− 1.56	1.16	15.0	7	11	6	11	nw.	G. J. Case.
Colchester	New London	370	25	25.0	− 2.6	52	26	− 2	16	41	3.04	− 1.27	1.46	13.0	8	10	4	14	w.	S. P. Willard.
Cream Hill	Litchfield	1,300	15	23.0	+ 0.5	50	26	0	16	35	1.71	− 1.44	0.45	18.0	10	14	1	13	w.	C. L. Gold.
Danielson	Windham	300	9	26.5	.....	58	4	− 7	16	46	3.20	.....	1.30	15.0	7	14	4	10	n.	F. E. Bitgood.
Hartford	Hartford	159	7	26.1	− 1.1	54	26	1	16	36	2.64	− 0.91	1.36	14.6	10	7	9	12	.....	U. S. Weather Bureau.
New Haven	New Haven	107	124	28.2	− 0.1	50	25	7	16	33	3.45	− 0.30	1.52	16.9	11	9	8	11	n.	Do.
New London	New London	47	41	30.5	− 1.4	57	27	9	16	34	2.56	− 1.49	0.65	14.5	9	9	8	11	nw.	Thos. C. Dillon.
North Grosvenor Dale	Windham	400	21	24.6	− 0.9	56	26	− 4	15	45	1.71	− 2.89	0.42	.....	11	10	7	11	w.	Grosvenor Dale Co.
Norwalk	Fairfield	116	21	26.4	− 0.6	52	26	− 3	16	43	3.54	− 0.60	1.40	11.5	9	14	3	11	nw.	Geo. C. Comstock.
Southington	Hartford	140	42	25.8	− 0.4	50	26	−11	16	49	2.80	− 1.37	1.50	14.5	7	6	14	8	nw.	Luman Andrews.
Storrs	Tolland	640	23	25.1	− 0.1	46	25†	4	6	35	2.73	− 1.24	1.68	.....	6	16	1	11	w.	Agricultural Exp. Station.
Torrington	Litchfield	625	9	23.6	.....	55	27	− 8	16	45	2.07	.....	0.67	13.0	8	13	3	12	nw.	Edwin H. Forbes, Ph. D.
Voluntown	New London	260	26	26.0	− 2.3	53	26	−12	16	55	2.70	− 2.27	1.21	13.2	9	13	4	11	nw.	F. S. Bitgood.
Waterbury	New Haven	400	36	27.0	+ 0.3	53	26	− 3	16	49	2.81	− 1.85	1.37	13.5	8	.....	.....	.....	.....	N. J. Welton.
New York.																				
Addison	Steuben	1,000	21	28.9	+ 5.0	56	25	6	22	31	2.82	+ 1.17	0.72	20.5	12	10	4	14	sw.	Dr. H. R. Ainsworth.
Albany	Albany	97	90	22.4	− 1.2	50	25	− 8	16	33	1.02	− 1.50	0.44	11.0	9	9	8	11	nw.	U. S. Weather Bureau.
Alfred	Allegany	1,976	16	26.7	+ 3.5	53	27	0	23	32	2.78	+ 0.50	0.56	25.8	12	.....	.....	.....	.....	Prof. F. S. Place.

TABLE 1.—*Climatological data for February, 1911. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New York—Continued.																			
Amsterdam	Montgomery	277	7	19.2	.....	44	26†	−11	16	40	1.57	.....	0.55	12.0	10	16	2	10	w.	Emery Elwood.
Athens	Greene	90	9	23.6	.....	50	26	−11	16	41	1.45	.....	0.48	14.0	8	6	11	11	nw.	E. C. Brooks.
Ballston Lake	Saratoga	400	7	19.2	.....	45	27	−17	16	41	1.46	.....	0.61	10.5	10	14	1	13	w.	Geo. R. Schauber.
Bedford	Westchester	450	20	27.2	− 0.1	52	26	0	16	31	2.49	− 1.59	1.04	8.0	10	12	3	13	.....	Dr. L. Rosenberg.
Binghamton	Broome	875	20	24.6	− 0.1	50	26	2	22	36	2.12	+ 0.22	0.64	15.5	15	2	7	19	w.	U. S. Weather Bureau
Bouckville	Madison	1,350	14	20.6	+ 2.5	45	26	−10	6	30	3.17	+ 0.22	0.56	25.5	16	4	8	16	nw.	L. W. Griswold.
Boyds Corners	Putnam	560	29	.....	.....	.....	.....	.....	.....	.....	2.83	− 1.48	.....	.....	.....	.....	.....	.....	.....	Thomas Manning.
Carmel	do	500	19	23.0	− 2.6	53	26	− 2	21	30	2.87	− 1.59	1.01	15.0	10	11	5	12	ne.	Do.
Chatham	Columbia	470	10	22.2	+ 0.7	50	26	−11	16	34	1.61	− 0.69	0.61	13.0	9	10	5	13	n.	Morton R. Tank.
Cooperstown	Otsego	1,250	57	.....	.....	.....	.....	.....	.....	.....	2.50	+ 0.02	0.60	19.7	15	8	10	10	n.	Elizabeth Keese.
Corinth	Saratoga	542	9	.....	.....	.....	.....	.....	.....	.....	1.85	.....	0.80	.....	5	.....	.....	.....	.....	A. M. Hollister.
Cortland	Cortland	1,129	49	26.2	+ 4.2	46	26†	3	6	33	2.93	+ 0.63	0.62	25.2	17	7	6	15	nw.	F. G. Baker.
Cutchogue	Suffolk	32	34	29.0	+ 1.8	49	4	5	16	31	2.85	− 1.05	0.83	14.5	10	10	9	9	nw.	Wm. A. Fleet.
De Ruyter	Madison	1,300	8	22.7	.....	50	25	− 9	6	38	2.42	.....	0.59	18.6	13	9	5	14	s.	B. D. Crandall.
Easton	Washington	.....	21	.....	.....	.....	.....	.....	.....	.....	1.34	− 1.26	0.62	11.5	8	.....	.....	.....	.....	H. Taber.
Elmira	Chemung	863	32	.....	.....	.....	.....	.....	.....	.....	2.54	+ 0.89	1.57	19.0	5	2	12	14	se.	Gerity Bros.
Fort Plain	Montgomery	316	7	22.3	.....	44	25†	−11	16	37	1.88	.....	0.46	11.8	12	11	6	11	w.	Abram Devendorf.
Glens Falls	Warren	340	20	19.5	+ 0.3	46	26	−13	16	41	2.03	− 0.82	0.81	17.2	10	5	10	13	ne.	C. L. Williams.
Gloversville	Fulton	850	19	18.6	+ 0.4	41	25†	−12	16	41	2.30	− 0.90	0.62	22.0	10	11	7	10	w.	W. L. McLean.
Greenfield Center	Saratoga	314	13	19.6	− 0.2	48	25	− 9	6†	35	1.51	− 1.60	0.63	7.0	4	14	4	10	sw.	S. E. Darrow.
Greenwich	Washington	425	14	22.0	+ 4.0	53	26	−10	16	35	1.38	− 0.75	0.57	12.0	9	8	13	7	s.	Homer J. Whitcomb.
Griffin Corners	Delaware	2,260	11	22.8	+ 3.5	52	26	−13	16	56	1.28	− 0.94	0.47	10.0	7	8	8	12	w.	Harold O. Judd.
Haskinville	Steuben	.....	16	.....	.....	.....	.....	.....	.....	.....	3.13	+ 1.82	0.55	26.0	12	.....	.....	.....	.....	W. G. Collins.
Homer	Cortland	.....	20	22.8	+ 0.4	45	25†	− 1	22	33	2.72	.....	0.63	13.0	13	10	5	13	nw.	Charles C. Mortimer.
Hoosick Falls	Rensselaer	410	9	.....	.....	.....	.....	.....	.....	.....	0.89	.....	0.23	14.2	10	18	3	7	.....	Sanford L. Cluett.
Indian Lake	Hamilton	1,705	12	16.4	+ 1.3	50	26	−20	3†	66	2.50	− 0.45	0.80	20.5	8	16	4	8	w.	Lester Severie.
Jeffersonville	Sullivan	1,240	8	22.7	.....	50	25	−16	16	59	2.18	.....	0.59	14.0	9	10	7	11	w.	Charles Wilfert, jr.
Lake Pleasant	Hamilton	.....	4	.....	.....	.....	.....	.....	.....	.....	1.90	.....	0.70	.....	4	.....	.....	.....	.....	W. W. Lawrence.
Liberty	Sullivan	2,300	29	19.3	− 2.1	45	25	0	5†	35	1.99	− 1.08	0.59	18.5	10	11	3	14	nw.	Dr. H. M. King.
Little Falls	Herkimer	924	13	18.8	+ 0.5	42	26†	− 7	6	31	1.78	− 0.39	0.37	15.0	11	12	4	12	w.	O. J. Dempster.
Mohonk Lake	Ulster	1,245	15	23.8	+ 0.4	51	25	0	3†	30	2.73	− 0.79	1.20	15.0	5	9	9	10	w.	A. K. Smiley.
Morehouseville	Hamilton	1,697	3	.....	.....	.....	.....	−20	6	.....	4.79	.....	0.90	55.0	13	15	5	8	w.	Theo. C. Remonda.
Newark Valley	Tioga	825	24	.....	.....	.....	.....	.....	.....	.....	3.03	+ 0.97	0.65	28.5	12	8	5	15	.....	M. D. Clinton.
New Berlin	Chenango	.....	4	.....	.....	.....	.....	.....	.....	.....	1.20	.....	0.30	6.0	8	6	4	18	w.	Roger Greene.
New Lisbon	Otsego	1,234	21	19.8	+ 0.8	47	26	− 8	16	46	1.45	− 0.99	0.39	16.0	10	3	7	18	s.	G. A. Yates.
New York City	New York	314	86	31.4	+ 0.7	56	26	15	3	23	3.17	− 0.57	1.48	12.5	11	6	11	11	nw.	U. S. Weather Bureau.
North Creek	Warren	1,002	3	18.1	.....	49	26	−18	16	51	1.93	.....	0.68	18.5	6	11	7	10	w.	W. G. Kenwell.
Northville	Fulton	742	9	.....	.....	.....	.....	.....	.....	.....	1.65	.....	0.40	20.0	7	.....	.....	.....	.....	P. C. Pickard.
Norwich	Chenango	1,015	5	22.8d	.....	45	27	0	15†	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. L. Clark.
Oneonta	Otsego	1,112	17	23.8	+ 1.5	49	26	− 3	16	35	1.63	− 1.13	0.42	14.0	12	8	4	16	sw.	H. W. Lee.
Oxford	Chenango	916	46	23.4	+ 0.9	44	25†	− 3	16†	39	2.90	+ 0.30	0.46	23.5	11	3	4	21	sw.	J. P. Davis.
Port Jervis	Orange	470	27	24.2	− 1.0	50	25†	−10	16	40	2.16	− 1.36	0.67	12.5	8	12	5	11	w.	F. E. Carruth.
Salisbury	Herkimer	1,526	14	16.4	− 0.9	50	26	−13	16	44	2.79	+ 0.36	0.68	18.0	15	9	8	11	nw.	Joseph Ryan.
Scarsdale	Westchester	200	7	29.4	.....	55	25	8	2	27	2.33	.....	0.70	17.0	7	12	7	9	ne.	C. H. Wilmarth.
Setauket	Suffolk	40	26	29.8	+ 0.3	51	26	13	3	18	3.08	− 1.03	1.28	14.5	9	13	4	11	w.	Selah B. Strong.
Sherburne	Chenango	.....	4	.....	.....	.....	.....	.....	.....	.....	2.00	.....	0.47	22.8	11	5	1	22	s.	E. B. Collins.
Southampton	Suffolk	36	10	29.6	+ 1.0	50	4	8	16†	23	3.29	− 0.34	1.05	16.0	11	7	11	10	ne.	W. L. Jagger.
Southeast Reservoir	Putnam	310	16	.....	.....	.....	.....	.....	.....	.....	2.66	− 1.44	.....	.....	.....	.....	.....	.....	.....	Thomas Manning.
Spier Falls	Saratoga	400	10	20.4	.....	57	27	−14	16	34	2.25	.....	0.97	19.0	6	9	8	11	nw.	Geo. E. Fifield.
Trenton Falls	Oneida	751	8	.....	.....	.....	.....	.....	.....	.....	3.35	.....	0.64	.....	10	.....	.....	.....	.....	C. W. Young.
Tribeshill	Montgomery	268	8	.....	.....	.....	.....	.....	.....	.....	1.40	.....	0.80	11.0	5	.....	.....	.....	.....	R. S. Marshall.
Utica	Oneida	537	45	.....	.....	.....	.....	.....	.....	.....	2.88	− 0.07	0.95	.....	19	.....	.....	.....	.....	W. E. Young.
Watling River	Suffolk	112	5	31.0	.....	50	4†	5	16	32	2.72	.....	0.90	17.5	12	12	4	12	w	H. B. Fullerton.
Wappingers Falls	Dutchess	110	21	27.2	+ 4.0	51	26	− 6	21	35	2.08	− 1.90	0.56	14.0	7	12	5	11	nw.	H. C. Townsend.
Warwick	Orange	538	17	.....	.....	.....	.....	.....	.....	.....	2.55	− 0.29	0.95	20.0	8	.....	.....	.....	.....	John W. Sly.
Waverly	Tioga	824	29	27.4	+ 3.5	53	25	7	6	33	2.60	+ 0.65	0.78	15.5	11	3	10	15	nw.	J. F. Shoemaker.
West Berne	Albany	946	12	21.2	+ 1.9	53	26	−24	16	62	1.45	− 1.30	0.40	13.0	9	5	4	19	w.	W. J. Haverly.
West Point	Orange	167	62	25.4	− 3.0	54	26	− 2	16	28	3.07	− 0.24	0.90	14.7	7	14	11	3	n.	U. S. Military Academy.
Windham	Greene	1,520	11	22.0	+ 1.9	53	26	−15	16	49	1.33	− 1.14	0.37	11.5	9	4	13	11	nw.	A. R. Mott.
Pennsylvania.																				
Altoona	Blair	1,181	23	36.5	+12.7	62	18	15	21	29	1.05	− 1.31	0.32	.....	8	.....	.....	.....	.....	C. W. Billin.
Bethlehem	Northampton	260	1	31.4	.....	56	26	14	6†	29	1.66	.....	0.54	10.8	11	10	0	18	nw.	Prof. E. C. Roest.
Clearfield	Clearfield	1,107	3	30.2	.....	55	18	5	21	37	2.75	.....	0.50	9.0	11	11	1	16	w.	Raymond C. Ogden.
Drifton	Luzerne	1,633	13	23.7	− 1.6	47	26	3	6†	29	2.44	− 0.66	0.50	18.2	15	12	6	10	w.	Eckley B. Coxe, jr.
Emporium	Cameron	1,050	24	28.4	+ 3.6	48	26	9	12	29	3.27	+ 0.29	1.17	10.0	11	6	6	16	w.	T. B. Lloyd.
Ephrata	Lancaster	384	11	29.6	+ 2.2	57	26	10	22	28	2.22	− 1.22	0.96	10.8	11	12	1	15	w.	W. L. Frantz.
Everett	Bedford	1,080	13	32.2	+ 7.0	63	18	14	11	30	0.85	− 1.62	0.26	8.5	4	9	6	13	nw.	B. L. Steckman.
George School	Bucks	184	4	30.8	.....	62	26	7	22	34	2.15	.....	1.15	7.2	9	11	4	13	nw.	Prof. N. W. Swayne.
Gettysburg	Adams	600	37	33.0	+ 2.7	57	26	15	11†	31	2.12	− 0.65	0.64	12.2	9	7	9	12	w.	Col. E. B. Cope.
Gordon	Schuylkill	804	7	29.3	.....	56	26	3	7	32	2.26	.....	0.52	17.0	11	10	4	14	w.	Capt. J. G. Johnson.
Hamburg	Berks	380	15	33.0	+ 5.2	56	25	10	22	28	0.86	− 2.54	0.40	5.5	4	16	4	8	nw.	W. J. Kalbach.
Harrisburg	Dauphin	361	23	32.0	+ 2.1	57	26	17	6	22	1.94	− 0.76	0.63	9.4	12	7	6	15	nw.	U. S. Weather Bureau.
Huntingdon	Huntingdon	650	23	32.8	+ 4.9	62	18	11	11	32	2.43	− 0.45	0.55	9.5	10	8	4	16	w,	Prof. W. J. Swigart.
Hyndman	Bedford	977	4	33.8	.....	64	18	9	11	31	2.10	.....	0.82	13.0	7	4	7	17	nw.	H. C. Mauk.
Lawrenceville	Tioga	1,006	13	28.1	+ 5.4	55	25	− 3	22	41	2.20	+ 0.26	0.55	18.5	8	6	7	15	.....	C. P. Darling.
Lebanon	Lebanon	458	24	30.8	+ 2.5	54	26	14	22†	26	2.09	− 1.55	0.53	9.9	12	7	6	15	nw.	G. W. Hayes, C. E.
Le Roy	Bradford	1,400	22	26.3	+ 4.2	50	25	5	6	28	1.95	− 0.38	0.37	15.2	16	3	6	19	sw.	G. W. T. Warburton.
Lock Haven	Clinton	560	23	31.4	+ 4.5	53	25	14	6†	26	2.42	− 0.46	0.55	12.0	9	6	7	15	w.	Prof. J. A. Robb.
Marion	Franklin	640	7	33.8	.....	60	26†	16	11†	31	2.07	.....	0.70	14.0	7	12	5	11	.....	Hon. C. B. Hege.
Mauch Chunk	Carbon	634	22	29.0	+ 2.5	58	26	11	3	30	2.41	− 1.72	0.80	11.7	11	12	3	13	n.	F. C. Wintermute.
Mifflintown	Juniata	445	7	32.1	.....	56	26	12	12	35	1.61	.....	0.34	11.0	10	7	4	17	w.	Wellington Smith.
Milford	Pike	455	8	25.2	.....	52	26	− 8	16	45	2.53	.....	0.77	17.0	10	8	11	9	nw.	Mrs. Alla Doughty.
Montrose	Susquehanna	1,658	7	24.0	.....	50	26	2	6	30	2.65	.....	0.70	25.0	9	6	5	17	.....	Silas Jagger.
New Germantown	Perry	873	7	32.6	.....	60	18	13	12	35	1.61	.....	0.60	9.5	5	7	5	16	w.	Ed. C. Johnston.
Philadelphia	Philadelphia	117	40	34.8	+ 2.0	63	26	17	6	23	2.69	− 0.69	1.24	8.1	12	8	5	15	nw.	U. S. Weather Bureau.
Pocono Lake	Monroe	1,662	9	24.6a	.....	51a	26	− 4a	22	31a	1.50	.....	0.42	8.0	7	5a	3a	19a	w.	Pocono Lake Ice Co.
Reading	Berks	280	38	33.2	+ 3.8	63	26	10	22	32	2.47	− 1.17	0.77	.....	11	.....	.....	.....	.....	Franklin Yager.
Scranton	Lackawanna	805	11	28.2	+ 1.3	56	26	9	6	26	1.90	− 0.82	0.45	11.1	12	4	7	17	sw.	U. S. Weather Bureau.
Selinsgrove	Snyder	455	23	31.8	+ 5.6	59	16	13	11	34	2.01	− 1.05	0.54	9.3	10	1	14	13	nw.	J. M. Boyer, C. E.
State College	Center	1,191	23	29.6	+ 4.4	56	18†	11	11	27	1.63	− 1.15	0.45	9.7	11	.....	.....	.....	sw.	Prof. Wm. Frear.
Towanda	Bradford	754	16	27.5	+ 4.7	50	26†	− 2	22	34	2.12	+ 0.24	0.50	18.6	10	5	7	16	e.	Hiram E. Bull, C. E.
Wellsboro	Tioga	1,327	34	27.4	+ 2.8	49	26	7	3	29	2.21	− 0.57	0.75	12.0	8	7	9	12	nw.	O. L. White.
West Chester	Chester	455	57	31.7	+ 0.9	61	26	12	22	25	2.66	− 1.54	1.10	7.2	11	9	3	16	nw.	J. C. Green, D. D. S.
Williamsport	Lycoming	530	21	31.6	+ 5.7	54	26	13	6	28	1.67	− 0.80	0.56	9.0	9	11	4	13	n.	Henry H. Guise.

TABLE 1.—*Climatological data for February, 1911. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New Jersey.																				
Asbury Park	Monmouth	22	23	33.4	+ 1.5	56	27	12	22	29	2.08	− 1.35	0.70	80	9	7	11	10	nw.	B. H. Obert.
Atlantic City	Atlantic	16	38	35.1	+ 2.1	57	25	18	21	23	2.24	− 1.03	0.73	3.9	11	6	8	14	nw.	U. S. Weather Bureau.
Bayonne	Hudson	50	21	31.0	+ 0.5	53	26	10	16	29	3.15	− 0.86	1.73	12.9	12	8	9	11	w.	J. H. Eadie.
Belvidere	Warren	289	20	29.2	+ 1.8	58	26	− 2	22	37	2.77	− 1.55	1.16	13.0	9	8	8	12	.....	S. J. Hixson.
Bergen Point	Hudson	37	14	30.6	+ 0.2	56	26	10	16†	30	4.06	− 0.33	1.79	13.5	11	8	10	10	nw.	Dr. W. H. Mitchell.
Boonton	Morris	413	21	.....	.....	.....	.....	.....	.....	.....	2.94	− 1.27	1.18	17.1	11	.....	.....	.....	.....	Foster Peer.
Bridgeton	Cumberland	30	30	34.4	+ 0.5	67	26	17	21	37	2.15	− 1.95	0.60	6.0	10	8	7	13	w.	H. A. Jorden.
Burlington	Burlington	12	27	.....	.....	.....	.....	.....	.....	.....	3.09	− 0.65	1.29	10.2	13	11	4	13	w.	D. S. B. McCoy.
Canton	Salem	24	17	.....	.....	.....	.....	.....	.....	.....	2.49	− 1.26	0.62	8.0	10	11	7	10	.....	J. H. Maskell.
Cape May City	Cape May	17	27	36.0	+ 1.9	58	25	20	3	23	1.76	− 1.53	0.50	3.8	11	8	9	11	nw.	U. S. Weather Bureau.
Charlotteburg	Passaic	719	19	27.8	+ 1.5	55	26	− 5	16	45	2.82	− 1.84	1.15	13.5	8	7	8	13	nw.	G. S. Briggs.
Chatham	Morris	234	9	.....	.....	.....	.....	.....	.....	.....	2.80	.....	1.30	11.8	11	.....	.....	.....	.....	M. A. Butler.
Clayton	Gloucester	126	18	33.2	+ 1.5	64	26	17	21†	33	2.42	− 1.60	0.52	7.0	10	8	8	12	ne.	W. T. Farley.
College Farm	Middlesex	100	16	30.0	− 0.2	61	26	7	16	31	3.43	− 0.10	1.95	11.0	12	10	6	12	nw.	G. B. Thrasher.
Culver's Lake	Sussex	848	10	.....	.....	.....	.....	.....	.....	.....	2.64	.....	1.04	16.0	10	9	9	10	e.	B. E. Riker.
Dover	Morris	575	27	26.7	+ 0.5	53	26	5	16	35	3.16	− 1.08	1.23	14.0	8	3	12	13	.....	W. C. Harris.
Elizabeth	Union	33	32	31.8	+ 1.4	57	26	12	16†	28	3.80	− 0.46	1.75	11.0	11	10	5	13	w.	W. M. Oliver.
Flemington	Hunterdon	187	23	30.8	+ 0.3	57	26	− 2	22	41	2.58	− 0.81	1.09	9.5	14	8	5	15	e.	H. E. Deats.
Haddonfield	Camden	75	24	33.0	+ 1.5	65	26	14	22	34	2.71	− 0.61	0.94	11.3	11	11	6	11	w.	C. F. Richardson.
Hammonton	Atlantic	80	13	.....	.....	.....	.....	.....	.....	.....	2.19	− 1.70	0.61	8.5	11	6	10	12	.....	Orville Bassett.
Hightstown	Mercer	85	19	31.8	+ 1.7	64	26	7	22	33	3.18	− 0.56	1.38	10.0	8	10	4	14	ne.	Ernst Wenger.
Highwood	Bergen	90	....	28.2	.....	54	26	− 4	16	41	3.23	.....	1.49	14.3	11	7	11	10	nw.	Charles J. Bates.
Indian Mills	Burlington	76	22	32.8	+ 0.7	67	26	12	21†	39[a]	2.63	− 1.33	0.64	6.3	12	10	5	13	nw.	James Armstrong.
Jersey City	Hudson	15	13	31.4	+ 0.2	54	26	12	16	28	3.74	− 0.20	1.74	12.7	11	6	11	11	nw.	S. K. Pearson, jr.
Lakewood	Ocean	54	9	32.4	.....	64	26	11	16†	35	2.26	.....	0.63	12.5	12	2	12	14	nw.	Ralph Robertson.
Lambertville	Hunterdon	95	25	32.4	+ 2.0	60	26	8	22	30	2.56	− 0.98	0.96	11.0	13	7	7	14	nw.	W. R. Bowne.
Layton	Sussex	550	12	25.3	+ 1.2	54	26	−12	16	48	2.62	− 0.84	1.00	13.0	8	7	10	11	ne.	W. C. Hursh.
Little Falls	Passaic	175	8	.....	.....	.....	.....	.....	.....	.....	2.77	.....	1.20	13.1	10	.....	.....	.....	.....	A. Sweetman.
Long Branch	Monmouth	30	4	33.0	.....	60	26	11	22	26	2.97	.....	0.73	12.0	10	7	10	11	nw.	B. B. Bobbitt.
Mahwah	Bergen	312	9	.....	.....	.....	.....	.....	.....	.....	3.67	.....	1.25	14.0	8	.....	.....	.....	.....	C. L. Barker.
Moorestown	Burlington	71	49	32.6	+ 1.6	64	26	14	21	32	2.62	− 1.01	1.03	7.7	12	9	7	12	w.	J. C. Beans.
Newark	Essex	140	68	30.6	+ 0.8	58	26	8	16	29	2.89	− 0.79	1.22	13.9	11	9	3	16	nw.	Prof. Wm. Wiener.
New Brunswick	Middlesex	61	58	30.6[b]	− 0.7	61	26	2	22	36[c]	3.53	− 0.16	1.85	17.0	10	7	8	13	w.	W. T. Woerner.
Newton	Sussex	678	32	28.2[c]	+ 2.5	52[c]	26	.....	.....	.....	2.43	− 1.40	0.95	13.3	9	.....	.....	.....	.....	W. G. Atwood.
Northfield	Atlantic	.....	4	.....	.....	.....	.....	.....	.....	.....	2.04	.....	0.69	3.8	11	.....	.....	.....	.....	W. L. Flick.
Paterson	Passaic	110	40	29.8	− 0.4	58	26	7	16	31	3.03	− 1.37	1.35	12.2	11	6	12	10	ne.	H. A. Probert
Phillipsburg	Warren	196	14	29.1	+ 1.3	58	26	8	22	29	2.64	− 1.15	0.93	11.6	12	8	6	14	w.	D. W. Smith.
Plainfield	Union	100	25	30.6	+ 0.4	59	26	8	16	33	3.41	− 0.50	1.46	11.9	13	10	5	13	ne.	John Neagle.
Pleasantville	Atlantic	26	13	.....	.....	.....	.....	.....	.....	.....	1.87	− 1.09	0.57	.....	10	8	10	10	.....	L. Van Gilder.
Pompton Plains	Morris	195	9	.....	.....	.....	.....	.....	.....	.....	3.24	.....	1.10	16.5	11	.....	.....	.....	.....	M. S. Taylor.
Rivervale	Bergen	70	20	26.6[b]	− 1.4	46	4	− 8	16	45[d]	2.71	− 1.56	1.10	15.5	10	10	8	10	nw.	G. S. M. Holdrum.
Somerville	Somerset	76	28	30.8	+ 0.8	60	26	5	16	34	2.81	− 0.74	1.21	10.5	14	8	5	15	ne.	P. Hardcastle.
South Orange	Essex	200	41	29.6	+ 0.6	57	26	8	16	30	2.98	− 1.04	1.54	15.0	11	7	7	14	nw.	Dr. W. J. Chandler.
Sussex	Sussex	442	21	26.0	− 0.2	52	25†	− 7	16	36	2.36	− 1.18	0.66	14.5	8	8	4	16	ne.	George Dymock.
Trenton	Mercer	60	40	32.7	− 0.7	64	26	8	22	33	2.42	− 1.21	1.41	7.5	10	10	3	15	.....	Paul H. Wendel.
Tuckerton	Ocean	23	18	34.2	+ 2.1	63	27	11	3	32	2.13	− 1.66	0.62	10.1	10	8	8	12	sw.	F. R. Austin.
Woodbine	Cape May	43	20	34.9	+ 2.4	65	26	17	21†	35	2.24	− 1.81	0.74	5.0	11	10	1	17	.....	Prof. H. A. Dodge.
West Virginia.																				
Bayard	Grant	2,500	10	32.8	+ 5.2	60	14	9	22	30	2.38	− 1.19	0.49	11.0	13	3	9	16	w.	Solomon Clark.
Burlington	Mineral	875	17	37.3	+ 7.9	70	2	16	11	42	1.45	− 1.14	0.70	9.0	4	8	11	9	w.	J. W. Vandiver.
Franklin	Pendleton	.....	5	37.0	.....	66	18	13	22	41	0.40	.....	0.20	4.0	2	13	5	10	.....	A. A. Martin.
Lost City	Hardy	.....	5	36.4	.....	62	18	16	22	30	0.93	.....	0.40	7.0	5	10	8	10	w.	B. D. Hinegardner.
Martinsburg	Berkeley	435	19	34.8	+ 5.4	66	17	18	22	37	1.30	− 1.15	0.60	9.5	5	13	3	12	nw.	G. W. VanMetre, C. E.
Moorefield	Hardy	900	15	36.0	+ 4.8	63	25	14	12	36	1.14	− 1.44	0.30	5.0	6	8	13	7	sw.	John C. Fisher.
Romney	Hampshire	824	14	34.4	+ 3.3	65	17	16	22	36	1.22	− 1.04	0.40	9.0	7	6	8	14	w.	John C. Linthicum.
Upper Tract	Pendleton	1,230	14	37.8	+ 6.4	67	13†	12	22	46	1.07	− 0.89	0.70	2.5	4	5	8	15	w.	J. M. Mallow.
Maryland.																				
Annapolis	Anne Arundel	45	33	35.2	+ 0.9	66	25	21	11†	33	3.09	− 0.74	0.85	4.5	8	8	9	11	se.	W. M. Abbott.
Bachmans Valley	Carroll	860	18	33.5	+ 6.1	60	26	14	21	30	1.79	− 2.58	0.67	9.0	8	15	5	8	s.	Elmer E. Yingling.
Baltimore	Baltimore	115	41	36.6	+ 2.0	64	26	20	6	27	2.31	− 1.20	0.60	8.9	11	8	8	12	sw.	U. S. Weather Bureau.
Cambridge	Dorchester	25	13	39.0	+ 3.9	69	26	22	6	33	2.68	− 1.65	0.84	5.2	10	11	6	11	nw.	T. E. Keenan.
Cheltenham	Prince George	230	11	38.6	.....	74	27	18	11	33	2.53	.....	0.66	4.0	12	12	3	13	nw.	J. E. Burbank.
Chestertown	Kent	80	26	34.6	+ 2.8	63	26	20	6†	30	1.80	− 1.43	0.56	4.0	7	12[a]	4[a]	11[a]	e.	M. W. Thomas.
Chewsville	Washington	530	14	34.8	+ 6.8	59	26	14	11	27	1.41	− 1.25	0.48	8.5	7	9	11	8	nw.	D. Paul Oswald.
Clear Spring	....do	650	14	32.0	+ 4.9	64	17	17	22	38	2.03	− 1.28	.....	10.4	11	9	11	8	e.	W. W. Frantz.
Coleman	Kent	80	13	35.3	.....	64	26	19	6†	32	1.82	− 1.93	0.80	8.0	6	13	3	12	nw.	James S. Harris.
College Park	Prince George	170	21	37.6	+ 5.1	68	26	16	11†	42	1.93	− 2.03	0.64	6.2	11	9	15	4	nw.	Prof. H. J. Patterson.
Cumberland	Allegany	700	37	.....	.....	.....	.....	.....	.....	.....	1.62	− 1.27	0.55	11.0	10	.....	.....	.....	.....	J. W. Frantz.
Darlington	Harford	300	19	32.6	+ 3.0	61	26	13	22	31	2.32	− 1.17	0.80	7.0	8	10	5	13	nw.	Prof. A. F. Galbreath.
Denton	Caroline	42	16	36.3	+ 4.2	67	26	19	21	36	1.44	− 1.99	0.50	5.5	8	13	2	13	n.	H. B. Mason.
Easton	Talbot	35	20	36.7	+ 3.5	66	26	20	6	31	1.26	− 2.45	0.48	4.9	8	12	2	14	nw.	Henry Shreve.
Emmitsburg	Frederick	720	38	34.6	+ 3.0	59	26	12	21	26	2.17	− 1.11	0.67	9.0	10	15	1	12	w.	John E. Eckenrode.
Fallston	Harford	450	41	33.7	+ 2.3	65	26	15	21†	31	2.20	− 1.78	0.70	10.0	10	0	20	8	sw.	J. H. Curtiss.
Frederick	Frederick	275	34	35.4	+ 2.7	60	26	18	21	30	1.76	− 1.30	0.55	8.5	9	10	8	10	nw.	Chas. S. Birely.
Frostburg	Allegany	1,929	10	33.2	.....	60	2†	16	21	31	1.91	.....	0.80	2.3	12	10	9	9	.....	L. B. Abbott.
Great Falls	Montgomery	200	20	36.4	+ 5.1	64	26	17	21	37	0.98	− 1.97	0.35	5.3	7	12	10	6	sw.	J. W. Bissett.
Gn. Spg. Furnace	Washington	450	19	35.0	+ 5.3	66	18	15	11	30	1.84	− 1.05	0.75	10.1	8	14	3	11	w.	E. G. Kinsell.
Keedysville	....do	400	7	35.0	.....	62	18	12	11	35	1.65	.....	0.75	7.5	8	13	5	10	nw.	J. A. Miller.
Lake Montebello	Baltimore	.....	2	35.6	.....	63	26	19	21	31	1.94	.....	0.55	8.7	10	15	1	12	nw.	Martin L. Dobler.
La Plata	Charles	190	2	38.8	.....	73	27	17	22	36	2.17	.....	0.58	4.5	6	18	0	10	w.	Prof. R. H. Lee Reich.
Laurel	Prince George	150	17	35.4	+ 4.0	65	26	11	22	38	2.20	− 1.41	0.70	9.0	9	10	7	11	.....	Dr. T. M. Baldwin.
Monrovia	Frederick	630	24	34.4	+ 3.0	59	26	16	10†	26	1.56	− 1.65	0.55	7.6	9	9	7	12	se.	J. H. Lawson.
Pocomoke City	Worcester	37	18	40.2	+ 4.1	65	26	24	22	25	2.29	− 1.49	0.60	2.0	8	11	6	11	se.	Hon. R. M. Stevenson.
Porto Bello	St. Marys	38	6	40.5	.....	69	26†	22	21	36	1.75	.....	0.75	.....	3	22	0	6	ne.	Alpheus Hyatt.
Princess Anne	Somerset	17	18	38.4	+ 4.8	67	26	23	6†	33	2.26	− 1.75	0.65	0.7	8	4	13	11	nw.	James R. Stewart.
Salisbury	Wicomico	23	6	38.9	.....	67	26	20	11	34	2.10	.....	0.70	1.5	11	9	10	9	sw.	W. E. Downing.
Solomons	Calvert	20	20	39.2	+ 5.0	68	26	23	21†	30	1.47	− 1.94	0.44	1.0	9	4	7	17	nw.	Dr. W. H. Marsh.
State Sanatorium	Frederick	1,200	3	33.2[f]	.....	59	24	14	21	22[f]	2.52	.....	0.70	7.5	10	14[b]	2[b]	10[b]	nw.	Joseph V. Shimek.
Sudlersville	Queen Anne	65	12	35.2	+ 3.5	66	26	17	10	34	2.49	− 1.39	0.63	8.5	10	9	5	14	w.	Jas. E. Higman.
Takoma Park	Montgomery	320	13	34.2	+ 4.0	66	26	17	21†	36	2.06	− 1.20	0.70	8.0	8	0	18	10	.....	L. M. Mooers.
Towson	Baltimore	465	3	34.4	.....	63	26	16	21	30	1.49	.....	0.49	8.1	11	12	1	15	nw.	C. W. E. Treadwell.
Van Bibber	Harford	100	14	33.8	+ 3.4	62	26	11	22	35	2.18	− 1.64	1.26	.....	5	9	13	6	.....	W. Benj. Ford.
Westernport	Allegany	1,000	17	36.2	+ 7.9	64	18	16	22	29	1.30	− 1.04	0.58	8.8	8	.....	.....	.....	.....	Prof. O. H. Bruce.
Woodstock	Baltimore	392	37	36.2[c]	+ 3.8	60	26†	19	10†	28[c]	1.46	− 1.86	0.50	5.0	9	15	3	10	w.	Rev. A. J. Donlon, S. J.

TABLE 1.—*Climatological data for February, 1911. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Delaware.																				
Delaware City	New Castle	20	9	34.0	.....	62	27	17	21	28	1.46	.....	0.70	5.5	6	13	4	11	nw.	H. Morton Price.
Dover	Kent	40	23	35.4	+ 0.3	66	26	18	21	31	1.95	− 1.61	0.95	7.0	7	12	5	11	w.	Thos. F. Dunn.
Milford	....do	20	27	37.6	+ 3.4	67	26	20	21	35	2.15	− 2.03	0.68	5.0	10	9	6	13	nw.	C. J. Holzmueller.
Millsboro	Sussex	20	19	38.0	+ 4.9	68	26	21	11†	36	2.55	− 1.51	0.68	.....	10	13	2	13	nw.	Rev. L. W. Wells.
Seaford	.....do	40	18	37.2	+ 4.3	66	26	22	21†	33	2.05	− 1.84	0.82	5.0	9	11	6	11	nw.	E. B. Brown.
District of Columbia.																				
Washington	Dist. of Columbia	112	41	37.0	+ 2.5	68	26	21	22	35	1.92	− 1.50	0.72	10.2	11	11	5	12	nw.	U. S. Weather Bureau.
Virginia.																				
Culpeper	Culpeper	450	3	37.8	.....	67	26	17	11†	39	143	.....	0.58	1.5	5	8	10	10	s.	Col. H. C. Burrows.
Dale Enterprise	Rockingham	1,350	32	37.2	+ 3.6	76	2	13	22	47	1.05	− 1.95	0.30	4.0	10	8	10	10	w.	Rev. L. J. Heatwole.
Doswell	Hanover	134	10	40.9‖	.....	.....	.....	20	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R., F. & P. R. R.
Eastville	Northampton	15	1	4.30	+ 2.9	70	26	26	22	34	2.29	− 1.78	0.57	T.	10	14	2	12	sw.	Thos. B. Robertson.
Fredericksburg	Spottsylvania	100	22	40.7	+ 5.9	72	26	16	11	44	1.76	− 1.53	0.50	3.5	9	10	8	10	sw.	S. G. Howison.
Lincoln	Loudon	500	10	35.6	.....	65	26	14	10†	40	1.58	.....	0.60	6.8	5	5	5	18	nw.	Dr. Geo. Roberts.
Mount Weather	....do	1,726	7	32.0	+ 2.9	61	18	13	22	30	1.51	− 1.65	0.86	6.7	11	8	9	11	w.	U. S. Weather Bureau.
Quantico	Prince William	16	14	38.8	+ 6.9	70	26†	15	22	42	1.79	.....	0.48	3.0	5	12	5	11	ne.	R., F. & P. R. R.
Staunton	Augusta	1,380	19	38.2	+ 3.8	71	2	1.6	22	39	1.05	− 1.88	0.49	2.0	9	11	8	9	sw.	Ernest Nothnagle.
Stephens City	Frederick	710	19	35.8	+ 4.4	68	2	14	11	37	1.57	− 1.36	0.65	2.9	9	10	2	16	w.	Mrs. B. T. Argenbright.
Warsaw	Richmond	160	19	40.3	+ 5.2	70	26	11	11	40	3.36	− 0.06	0.80	T.	9	4	11	13	n.	C. H. Constable.
Woodstock	Shenandoah	927	15	38.7	+ 7.3	71	2	13	22	39	1.25	− 1.50	0.63	6.5	9	11	7	10	w.	Mrs. A. G. Miley.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 1, North Atlantic States.*

Stations.	River basins.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Maine.																													
Ashland	St. John		0.41		0.37	0.02			T.	0.14								0.17											1.11
Bar Harbor	Coast		.55	T.	1.30	T.		1.10	T.				0.25					.47			0.47		T.			T.	T.		4.14
Cornish	Saco		.80		1.01			1.10	0.05		T.		T.	0.10				.15			.25				T.		T.		3.46
Danforth	Penobscot		.50		.70			T.	.20									0.10	0.10				0.10						1.70
Eastport	Coast		.55	0.06	.80			.48	.12				.04					.35	T.		.04				0.03				2.47
Ellsworth	do			.62	.05	.86			1.20	.03		T.	.03	.04					.19			0.05	T.				T.		3.07
Eustis	Kennebec		.54	.17	.43	.07		.06	.06	0.4	T.	T.	.04					T.	.04	T.	T.	.02		T.	.02	T.		T.		1.49
Fairfield	do		.58		.68			.45	.12				.18					.18											2.13
Farmington	do		.53	.06	.78			.53		.04	0.01		.03					.05			.02				.01				2.06
Gardiner	do		.42	.03	1.10			.52	.07	.05	.01		.08					.20			.01	T.	.02		T.				2.51
Greenville	do		1.60		.60	.05		.10	.10	T.	T.	T.	.05					.15	T.		T.		T.		.03	T.		T.		2.68
Houlton	St. John		.10		.25		0.15		.10	.10								.15											0.85
Howe Brook	Penobscot				.60	.30												.06									0.30		1.26
Lewiston	Androscoggin		.37	.02	.89			1.00	.04		T.		.06					.20			.11		T.		T.				2.49
Madison	Kennebec		*	.46	.63			.37	.09				.04					.18											1.77
Millinocket	Penobscot			.50	.10	.80			.05	.13	T.	0.05	T.						.33						T.				1.96
North Bridgton	Saco			.65	1.00	.01			.71	.02	.01	.01						.11			.04								2.56
Oquossoc	Androscoggin		.55		.75			.15					.18					.15						0.10					1.88
Orono	Penobscot		.90		.53			.60	.05				.10					.50			.05		.05				T.		2.78
Patten	do		.30		.60			.02	.10		.05							.20							.20				1.47
Portland	Coast		1.61	.01	1.42			1.18	.06		.05		.04	.10				.19			.32		.02		.02				5.02
Presque Isle	St. John		.15	.07	.35	.03			.10	.10								.10	.12										1.02
Rumford Falls	Androscoggin		.52	T.	.34			.25	.04		T.		.09					.09			.05		T.	T.	T.				2.58
The Forks	Kennebec		1.25		.50			.30									0.10												2.15
Winslow	do			.35	.50			.25	T.				.15					.15	T.										1.40
New Hampshire.																													
Alstead Center	Connecticut		.54	T.	.68	.01	T.	.38	T.	.05	.02		T.	T.	0.18	T.		.05			.07	T.	T.	T.	T.				1.98
Benton	do	0.36	.10		.23		.21	.29	.03				.05	.12				.16			.14		.08	.10	.03				1.90
Bethlehem	do		.30		.10	T.		.65	.10		T.	.10	T.					.29		T.	.15		T.		T.				1.69
Brookline	Merrimack		.40	*	1.10			.40	.10		T.		T.	T.	.10			.30			.40		T.		T.				2.80
Concord	do		.81	.30	.70	T.	T.	.56	.04		T.	.01	T.	.08	.10			.20			.21		T.		.01				3.02
Durham	do		.12		1.08			.13	.06			.08			.13						.29								1.89
Franklin	do		.60	.08	.85	T.		.74	T.	.04		T.	T.	.02	.12			.20		T.	.18	T.	T.		.03				2.86
Grafton	do		.30	.05	.30			.86						.02	.10			.25	.10		.12				.05				2.15
Hanover	Connecticut		.59	.02	.48	T.	T.	1.12	.05		T.	.01	.03	.09	.13			.12			.27		.02		.15		T.		3.08
Keene	do		.47	.05	.55		T.	.33	.05	T.	.01	T.	.01	T.	.13			.05			.10		.03		T.				1.78
Nashua	Merrimack		.65	.01	1.23			.30	.03					.08	.07			.12			.22				T.				2.71
Newton	do		.42	T.	1.41	T.		.30	.07		T.		T.	T.	.07			.20			.20		T.		T.				2.67
Plymouth	do		.31	.10	.93	T.		.64	.09	T.	T.	T.	T.		.15			.24	T.	T.	.09	T.	T.	T.	.12	T.		T.		2.67
Vermont.																													
Bloomfield	Connecticut		.45	.04	.34			.09		.05		.06	.08						.10	0.05	.05	.01			.16	0.02				1.50
Cavendish	do		.46	.13	.93		T.	.62			.03	T.		T.	.18			.03	T.				T.		T.				2.38
Chelsea	do		.40		.45			.70	.08									.18			.16		.12		.12				2.21
Jacksonville	do		.85		.63	.07		1.35	.25			.07			.20	0.07		.80			.25	.15	.07	.15	.15				5.06
Manchester	Hudson		.04		.09		T.				.35	T.	T.	T.				.19			T.		T.						0.67
St. Johnsbury	Connecticut		.58	.15	.74			.36	.05	.02	.01	T.	.02	T.				.15	.03		.07	.02			.09	T.		T.		2.29
Vernon	do	.12	.30	.20	.02		.20	.40	.05		.02			.05				.01			.02								1.39
Woodstock	do		.68		.77			.80	T.		T.		.11					.05			.05				.04				2.50
Massachusetts.																													
Amherst	Connecticut		.39		.94		.08	.41	.12						.06			.07			.11								2.18
Ashland	Merrimack		*	*	1.62		*	.55	.08					*	.09			.11			.27		.02						2.74
Bakers Bridge	do		.35		1.26					.05								.22			T.								1.88
Bedford	do		.59	.05				.28	T.	.10			T.	T.	.15			.21			.22	.02	.04		T.				1.66
Blue Hill	Coast		.39	.06	1.00		.03	.88	.07	.05			.02	.02	.19			.20			.22	.03	.02	.01	.01				3.20
Boston	do		.37	.05	.94		T.	.71	.12		T.	T.	.01	.02	.14	T.		.20			.29		T.		T.				2.85
Chestnut Hill	do		.52	.34	.77		*	.94	.11					*	.25			.18			.32								3.43
Clinton	Merrimack		.55		1.15		*	.44	.07					*	.25			.05			.25		.02		.03				2.81
Concord	do		.46	.02	1.31		T.	.26	.02	.04	T.		.02	T.	.10			.12			.17	.02	T.	T.	T.				2.54
Fall River	Coast		.15	.05	.32		.08	.50	.15				.02		.04	T.		.10			.40		T.						1.81
Fitchburg	Merrimack		.10	.26	.80		T.	.60	.07	T.	T.	T.	T.	T.	.07			.03			.18	T.	T.						2.11
Framingham	do		.35	*	1.14		*	.63	.07					*	.09			*	.08		.27		.01						2.64
Haverhill	do		.55	.10	1.27			.34	T.	.05	T.			.03	.09			.06	.01		.11	.03	.01						2.65
Hingham	Coast		*	.62	.71		*	1.06	.12		T.	T.	T.	T.	.25	T.		.12			.33		T.		T.				3.21
Hyannis	do		*	.32	.75		*	1.08	.03	.16	.15				*	.06		*	.18		.43								3.16
Jefferson	Merrimack		.41		1.14			.61	.07					.12				.04			.24								2.63
Lake Cochituate	do		.52	*	1.24		*	.74	.08						.12			.10			.33		.07						3.20
Lawrence	do		*	.66	1.36			.16	.08		T.		T.	*	.12			.19			.20		.03		T.				2.80
Leominster	do		.48	.01	1.13		T.	.25	.08			T.	T.	.02	.12			.05			.21		T.		T.				2.35
Lowell	do		.76		1.37			.27	.08				*	*	.17						.22		.01						2.88
Middleboro	Coast		.30	.04	.76		*	1.30	.10				T.		.08			.14			.05		T.						2.77
Monson	Connecticut		.18		1.20		.06	.34	.06	.09								.12			.40								2.45
Nantucket	Coast		.38	.02	.85		.14	.84	.14	.12	.10				.10	.01		.31			.87				T.				3.88
New Bedford	do																												
Norfolk	do		.23	.18	1.37		.03	1.08	T.	.15			T.			T.		.10	.23		.29		T.						3.66
Northampton	Connecticut		.12	*	1.11			.70	.11									.14							T.				2.18
Plymouth	Coast		*	*	1.25		*	.90	.10				T.		.15	T.		.12			.55	T.	T.						3.07
Princeton	Merrimack		*	*	1.34		*	.23	.18					.05				.12			.14								2.06
Provincetown	Coast		.18	.08	.52		T.	.60		.10	.10				.10			.10			.30		T.	T.					2.10
Rockport	do		.75		1.04			.90		.08					.05			.45			.40								3.67
Rutland	Connecticut		.42	*	1.12		*	.31	.10					*	.09			.10			.18		.02		.02				2.36
Somerset	Coast		*	*	.59		.06	.61	.07						.10			.10			.38				T.				1.91
South Egremont	Housatonic																												
Spot Pond	Coast	.09	.41	.30	.84		.18	.56	.11				.02	.13	.06			.20			.24	.02	.01		.01				3.18
Springfield	Connecticut		.19	.61	.91		.59	.31	.20					T.	.03			T.	.19		.23				T.				3.26
Sterling	Merrimack		*	*	1.51			.31	*	.08		T.		.03				.05				.31			T.				2.29
Taunton	Coast		*	*	1.09		*	.70	*	.14	T.		T.	*	.10	.10		.19			.32		T.		T.				2.64
Turners Falls	Connecticut		.35	.07	.75			.54	.17		T.	T.			.11			.14	T.		.13		T.		T.		T.		2.26
Westboro	Merrimack			*	2.20		*	.60	*	.05				*	.15			.03			.50			T.	.03				3.56
Williamstown	Hudson		.06		.20		.01	.08	.04		.06	T.		.02	.11			.10	T.		.07	T.	T.		T.		T.		0.75
Winchendon	Connecticut		.45	.10	.72			.32	.09		T.				.13			.03			.14		.02		T.				2.00
Worcester	Coast		.11	T.	1.19	T.	.01	.32	.02		T.		T.	T.	.06			.29			.21		T.		T.				2.21
Rhode Island.																													
Block Island	Coast		.06	T.	.65		.29	.13	.18		.02				.16			.11	.01		.40								2.01
Bristol	do			.21	.62		*	.78		.16			T.		*	.04		.10			.42								2.33
Greene	do			*	1.21		*	.40							.16			.18			.27								2.22
Hope Valley	do		.09	.03	.95		.12	.50	.10	.08					.10			.20			.60				T.				2.77
Kingston	do		.19		.62		.10	.43	.25						.12			.20			.45		T.						2.36
Narragansett Pier	do		.15	T.	.56		.17	.35	.05	.15			T.		.20	T.		.14			.55		T.						2.32
Pawtucket	do	*	*	*	1.09		*	.92	*	.10			T.		T.			.14			.36		T.		T.				2.61
Providence	do		.23	.01	.78		.07	.61	.12		T.		T.	T.	.07	T.		.08			.41	T.	T.		T.				2.38
Wallum Lake	do		.05	T.	1.20		.20	.20							.10			.50			.50	T.							2.75

TABLE 2.—*Daily precipitation for February, 1911. District No. 1*—Continued.

Stations.	River basins.	Day of month.																									Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Connecticut.																														
Bridgeport	Coast		0.07	0.01	1.63		0.16	0.21	0.06	0.11					0.20	0.06		0.19	T.		0.56									3.26
Canton	Connecticut		.05		1.16		*	.45	T.						.33			.18			.27									2.44
Colchester	Coast		T.	.10	1.46		.20	.30	T.	.05					.15			.18			.60		T.	T.	T.					3.04
Cream Hill	Housatonic			.04	.22		.15	.20	.05		0.03				.30			.26		0.01	.45									1.71
Danielson	Coast				1.30		*	.60	.10						.20			.60			.40									3.20
Falls Village	Housatonic		.02		.58		.15	.16	.08						.33			.28			.20				T.					1.80
Hartford	Connecticut		.09	.05	1.31	T.	.21	.20	.14			T.		T.	.12	.04		.14			.34		T.		T.		T.			2.64
Hawleyville	Housatonic																													
Lake Konomoc	Coast				1.05			.80		.40					.20			.10				1.30								3.85
New Haven	do		.06	.01	1.51		.20	.36	.10	.02					.36	.05		.15			.63		T.	T.	T.					3.45
New London	do		.35		.25		.20	.27	.08	.03					.09			.65			.64									2.56
North Grosvenor Dale	do		.20		.38		.05	.42	.04	.13			0.02		.04			.06			.33		0.04							1.71
Norwalk	do		*	*	2.00		*	.30	.15						.35			.24			.50				T.					3.54
Southington	do		T.	T.	1.50		.25	.25	T.	T.					.15	.10		.15	T.		.40	T.		T.						2.80
South Manchester	Connecticut							*	.56												.51									1.07
Storrs	Coast		.15		1.68		.08	.30							.17						.35									2.73
Torrington	Housatonic		T.	T.	.67	0.26		.32	.10	T.					*	.24			0.23		T.	.25	T.	T.						2.07
Voluntown	Coast		.05		1.21		.06	.40		.16					.12			.13	.05		.52									2.70
Wallingford	do		.07	1.30	.44		.43	.36	.14					0.05	.29			.18			.69									3.95
Waterbury	Housatonic		.03	T.	1.37		*	.50	.12		T.				.20			.14		T.	.45		T.		T.					2.81
West Simsbury	Connecticut		.04	T.	1.12		*	.60	.04						.20			.21			.40									2.61
New York.																														
Addison	Susquehanna		T.	T.	.25		.33	.32	.01		T.				.72	.42		.31	.04	.02	.35	.02	.03		T.					2.82
Albany	Hudson		.11	T.	.17	T.	.15	.29	.02		.01	T.		T.	.10	T.		.13	T.		.04		T.		T.		T.	T.		1.02
Alfred	Susquehanna	0.05	T.		.20	.05	.30				.20	0.05		T.	.52	.20					.56	.15	.30	0.20						2.78
Amsterdam	Mohawk			.20	.35		*	.55	*	.10	T.	T.		.10	.10			T.				.07	.10		T.					1.57
Athens	Hudson		.01	T.	.48	T.	.16	.36	T.		T.	T.		T.	.08	.16		.04		T.	.16		T.		T.					1.45
Bainbridge ‖	Susquehanna				.20	.04	.26			.10		T.		.10	.35				.28	T.	.10	.06		.06	T.		T.			1.55
Ballston Lake	Hudson			.17	.37		*	.61	*	.09	T.	T.	T.	T.	.02	T.		.13			*	.07	T.		T.		T.	T.		1.46
Bedford	Coast		.01		1.04		.07	.22	.07	.05					.20	.19		.24			.40									2.49
Binghamton	Susquehanna	T.	T.	.02	.30	T.	.36	.07	.09		.02		T.	.04	.58	.07		.28	.01	T.	.15	T.	.08	T.	0.04			T.	0.01	2.12
Blue Ridge	Hudson		.60	.02	.47			.52	.05		.02		.06	.06	.02			.18			.06				.06					2.12
Bouckville	Susquehanna		.17		.56	.05	.10	.50	.20		.10		.09	.04		.10		.15	.11	T.	.50		.20		.25				.05	3.17
Carmel ‖	Hudson		.07		.96	.05		.41	.14						.09	.41		.19			.28	.27								2.87
Chatham	do		.03	T.	.33	T.	.06	.55	.03		T.	T.			.07	.12		.20			.22	T.		T.						1.61
Cooperstown	Susquehanna	.05		.35	.22		.60		.10		.09			.08	.38			.15	.07		.12		.14					0.08	0.05	.02	2.50
Corinth ‖	Hudson		.25		.80			.65		.10												.05								1.85
Cortland	Susquehanna		T.	.01	.62		.15	.40	.07		.03				.13	.39		.18	.24		.35	.01	.34	.06	.06				.05	.04	3.13
Cutchogue	Coast		.10	.05	.83		.20	.20		.05					.30	T.		.35	.07		.70	T.	T.							2.85
De Ruyter	Susquehanna	T.	.06	.50	.15		.10	.49			T.			T.	T.	.29		.19	.32	.05	.12	T.	.07	T.	.03			.05		2.42
Easton	Hudson				.30			.62	.11		.07			.06	.04			.10		.04										1.34
Elmira	Susquehanna				1.57										.50					.19	.24		.04							2.54
Fort Plain	Mohawk		.25		.46	T.	.04	.42	.14	T.	.01	T.	T.	.01	.11	T.		.17	T.		.09	T.	.01		T.			.17	T.	1.88
Glens Falls	Hudson		.44		.81		T.	.50	.03	.04	.03			.03				.07			.06				.02					2.03
Gloversville	Mohawk		.45	.08	.48		T.	.62	.09		.08			T.	T.	.15		.15			.08		.12		T.					2.30
Greenfield Center	Hudson		.23		.63			.55	.10																					1.51
Greenwich	do		.20		.30			.57	.10		.09			.01	.01			.03			.07		T.				T.			1.38
Griffin Corners	Delaware		T.		.47		.10	.25			T.			T.	.18	.10		.09	T.		.09		T.							1.28
Haskinville	Susquehanna				.27		.30	.20			.15	T.			.50	.45		.36		.05	.55	.20					.05	T.	.05	3.13
Homer	do	T.	T.	T.	.63	T.	.15	.30	.17		.03				.21	.30		.29	.05		.18		.08	.08	.25		T.	T.	T.	2.72
Hoosick Falls ‖	Hudson		.12	T.	.10	.11		.23	.02	.11		.05			.06				.03			.06	T.	T.	T.	T.		T.	T.	0.89
Indian Lake	do		.40		.80			.40	.25		.25							.05	T.		.15						.20			2.50
Jeffersonville	Delaware		.05	T.	.56	T.	.12	.14	.08		T.				T.	.59		.32	.04		.28		T.		T.				T.	2.18
Knowelhurst	Hudson		.44		.84			.72	.06									.11			.10				.05					2.32
Lake Pleasant	do		.50		.70			.60				T.								.10										1.90
Liberty	Delaware		.12	.19	T.	.20			T.	.05				.10	.59		0.45	*	.20		.09				T.					1.99
Little Falls	Mohawk		.16		.37		.07	.21	.05		.17	.08		T.	.09			.30			.05		.23				T.	T.		1.78
Mechanicsville	Hudson	.12	T.	.09	.09		.33	.03	.03					.05	T.			.03			.03			T.			T.			0.[illegible]
Mohawk Lake	do				1.20			.60							.50			.18			.25									2.73
Morehouseville	Mohawk		.53		.70		.12	.60			.40	.90	.10	.02				.37			.32		.10		.53		.10			4.79
Mount Hope	Coast																													
Newark Valley	Susquehanna		T.		.43		.50	.06	.17		.05				.65	.30		.40	.05		.25		.14	.03	T.				T.	3.03
New Berlin ‖	do				.30	.08	T.	.30		.16					T.			.10		.08	.08	T.	.10					T.	T.	1.20
Newcomb	Hudson	.50	1.54	.06	1.40			1.70	.55		.75	.15	.09														.75			7.49
New Lisbon	Susquehanna		.09		.39	T.	.10	.34	.08			T.			T.	.16		.05			.15		.05		.04			T.		1.45
New York City	Coast		.07	.04	1.44		.45	.14	.05	.01	T.				.30	.04		.08	T.		.55		T.		T.				T.	3.17
North Creek	Hudson		.46		.68		T.	.50	.05									.14			.10									1.93
Northville ‖	do	.38		.40	.10		.42	.05										.22			.08									1.65
Oneonta	Susquehanna	.10			.33			.42	.10	T.	T.				.10	.17		.08	.06		.14		.04		.05		.04			1.63
Oxford	do		T.		.46	T.	.25	.30	.20		T.		T.	T.	.20	.20		.25	.12	T.	.35	T.	.36	T.	.20			T.	T.	2.90
Port Jervis	Delaware				.67		.12	.12	.19		T.				.05	.47		.24			.30		T.		T.					2.16
Salisbury	Mohawk		.38	.12	.68			.51	.12		.09			.04	.08			.46	.08		.04		.04			0.04	.08	.03		2.79
Scarsdale	Coast			T.	.45	T.	.10	.30	T.	T.	T.				.20	.40		.18			.70									2.33
Setauket	do		.10	T.	1.28		.20	.24	T.	.10	T.				.18	.23		.20	T.		.55		T.		T.					3.08
Sherburne ‖	Susquehanna				.47	.14		.35		.20						.23			.15		.13	.10	.07	.06	.10			T.		2.00
Southampton	Coast		.17	T.	1.05		.05	.67	T.	.12	.01				.16	.15		.09	T.		.60	.22	T.		T.					3.29
Spier Falls	Hudson		.51		.97			.60	.64									.10			.03									2.25
Trenton Falls ‖	Mohawk		.29	T.	.64	T.		.50		.16	T.	.05		T.	.16				.33	T.		.15	.02	T.	.05	T.			T.	2.35
Tribes Hill ‖	do				.20			.80							.20								.10				.10			1.40
Utica ‖	do		.10	.04	.41			.95	.07	.08	.09	.06	.04	.08	.22				.39	.04	.01	.12		.09	.04	.01		.04		2.88
Wading River	Coast		.10	.01	.90		.16	.20	*	.03	.14				.35			.20			.60	.03								2.72
Wakely Dam	Hudson		.43		.60			.50	.10			.30						.32			.20				.45					2.90
Wappingers Falls	do		T.	.10	.56		.10	.42	T.					.26	.32						.32									2.08
Warwick	do				.95		.15	.25	.12						.35	.12		.25			.36									2.55
Waverly	Susquehanna		T.		.30	T.	.18	.18	.05	T.	.02				.78	.30		.37		.07	.32	T.	.03	T.					T.	2.60
Wells	Hudson		.67	.82				.75										*	*	.28										2.53
West Berne	Mohawk		.10	.10	.06		.10	.40	T.		T.	T.		T.	.10	.20		.09			.30		T.	T.						1.45
West Point	Hudson				.80		.09	.35	.08						.90			.40			.45									3.07
Windham	Mohawk		T.				.13	.37	.08						T.	.34		.05	.06	.08	.15		T.		.07			T.		1.33
Pennsylvania.																														
Altoona	Susquehanna	T.			.11	T.	.15	.02	.02	T.					.04	.32	T.	T.	.16	T.	.23	T.		T.			T.			1.05
Ansonia ‖	do				.46			.39						T.		.76		.13	.09		.19	.08		T.				T.		2.10
Austin	do			T.	.10		.30	.20			T.				.60	.10		.20			.30		.10							1.90
Bellefonte	do				.51		.40								.42	.50						.30		.10						2.23
Bethlehem	Lehigh		.09		.12	T.	.15	.16	.04	.10					.11	.23		.05	.07		.54	T.	T.		T.					1.66
Browers Lock	Schuylkill	.03	.12	.28	.64		.14	.12	.18	.05					.18	.11			.06		.08									1.99
Catawissa	Susquehanna		.10	.20	.27		.16	.15	.05						.41			.10	.16		.37		T.				T.			1.97
Center Hall	do				.50	.25	.25				T.				.35	T.		T.			.15		T.							1.50
Clearfield	do				.50		.36	.24	.05						.41	.25		.06	.32		.43		.04					.09	T.	2.75
Coatesville	Coast		.10		.79		.32	.09	.14	.03	.04				.14	.10			.01		.48									2.24
Doylestown	Schuylkill		.30		.97			.45		.07						.20		.17			.30									2.46
Drifton	Susquehanna		.30		.50		.20	.05	.02		.02			T.	.10	.12		.20	.30	T.	.40		.04	.07	.10		.02			2.44

TABLE 2.—*Daily precipitation for February, 1911. District No. 1*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Pennsylvania—Contd.																														
Emporium	do		0.05		0.43		0.25	0.25	0.10						1.17			0.10	0.14		0.40		0.05				0.33			3.27
Ephrata	do		.03		.96		.31	.06	.09	0.02	0.02				.09	0.10		T.	.03		.51									2.22
Everett	Juniata				.17		.22								.26						.20									0.85
Forks of Neshaminy	Delaware		.12		.97		.21									.20			.03		.39									1.92
George School	do		.26		1.15		.05	.11	.08	.07	.07				T.	.11		T.		T.	.25									2.15
Gettysburg	Potomac	T.	.13		.24		.64	.07	.09	.02					.08	.28	T.				.57									2.12
Girardsville	Susquehanna		.06	0.15	.49		.20	.10	.04		T.				.30	.18	T.	.24	.12		.42		.03							2.33
Gordon	do		.06		.52		.40	.25		.06					.19	.11			.23			0.32		0.10	0.02					2.26
Hamburg	Schuylkill			.15															.14	0.17	.40									.86
Hanover	Susquehanna	T.	.06		.56		.53	T.	.09						.39	.05			.05		.60			T.						2.33
Harrisburg	do	T.	.03	.21	.09		.61	.02	.05	.01	T.				.22	.04		.01	.05	T.	.60		T.				T.		T.	1.94
Huntingdon	Juniata		.02		.35		.55	.10	.08		T.				.48	.42	0.05		.10		.28						T.	T.		2.43
Hyndman	Potomac	T.		.07	.08	T.	.82	T.	.18		T.				.24	.09			T.		.62			T.			T.		T.	2.10
Kennett Square	Coast		.11				.40		.07					0.16	.17	T.				.04	T.									0.95
Lancaster	Susquehanna																													
Lansdale	Schuylkill		.21		1.05		.23	.15	.11	.14					.12	.14		.07			.14									2.36
Lawrenceville	Susquehanna				.10		.20	.20	.05						.55	.40		.30	T.	T.	.40		T.				T.			2.20
Lebanon	do		.08		.53		.30	T.	.17	T.	.01				.17	.20		.02	.17		.40			.02			.02			2.09
Le Roy	do	0.01	.01		.30		.20	.15	.05		.01			T.	.37	.30		.10	.13	.02	.22	.01	.05		.02				T.	1.95
Lewisburg	do				.60		*	.52	.06						.25	.28			.26		.42									2.39
Lloyd	do		T.		.24		.23	.10	T.	T.				T.	.41	.22		.05	.01		.31		.01							1.58
Lock Haven	do		.04		.55		.35	.20	T.		T.				.40	.07	.05	.36			.40		T.	T.						2.42
Marion	Potomac		T.		.32		.70	.11	.08						.09	T.	.27				.50									2.07
Mauch Chunk	Delaware		.14		.80		.14	.28	.06						.19	.21		.08	.07		.42			.02						2.41
Mifflintown	Juniata		.02		.34		.34	.15	.04						.15	.23		.02	.15		.17									1.61
Milford	Delaware		.04	T.	.77	T.	.15	.20	.13			T.			.30	.30		.29			.35	T.			T.					2.53
Montrose	Susquehanna				.25		.20		.30						.50	.20		.30			.60	.10	.20							2.65
Mountain House	Juniata					0.10	.50	.05		.06					.34	.22		.23	.04	.16	.30									2.00
Mount Gretna	Susquehanna		.06	T.	.51		.28	.09	.16		.02				.18	.18		.02	.16		.47						T.	T.		2.13
Muncy Valley	do																													
New Germantown	do				.40		.33								.40	.20					.28									1.61
Ottsville	Delaware		.13		.90		.10		.25	.02					.23	.02		.04	.05		.39									2.13
Philadelphia (1)	do		.09	.03	1.21		.30	.10	.14	.12					.17	.02			.01		.49		.01							2.69
Pocono Lake	do		.18		.42		.10	.20	T.						.10		.10				.40									1.50
Point Pleasant	do		.11		.95		.17	.16	.08	.09					.13	.15		.04	.06		.44	.07								2.45
Pottsville	Schuylkill		.07	.15	.45		.21	.14	.11						.35	.03	.05				.35		.08							1.99
Reading	do		.06	.27	.77		.20	.14	.18						.30	.03		.04	.12		.36									2.47
Renovo ‖	Susquehanna				.30			.52								.12		.12	.08		.22							0.10		1.46
Scranton	do			.18	.18		.07	.05	.08		.01				.27	.06		.36			.45		.03					.16		1.90
Seisholtzville	Schuylkill		.15		.89		.13	.15	.19						.22	.07			.11		.44									2.35
Selinsgrove	Susquehanna		.03		.54		.30	.17	.07		T.				.17	.31		.01	.11	T.	.30									2.01
Shawmont	Schuykill		.14		1.01		.25	.06	.05	.22					.15	.07			.03		.60									2.58
Shippensburg	Susquehanna																													
Smiths Corners	Schuylkill				1.08		.05		.26						.17						.49									2.05
Spring Mount	do		.10			.70		.29		.14						.23				.12	.44									2.02
State College	Susquehanna		.02	.01	.37	T.	.26	.07	T.	T.	.01				.45	.13		T.	.18	T.	.12		.01	T.					T.	1.63
Stroudsburg	Delaware		.14		.98		.07	.25	.05	.01					.19	.25		.13	.02		.43	.02		.01	T.					2.55
Towanda	Susquehanna		T.		.22		.18	.18	.08						.50	.30		.26	T.	T.	.26	T.	.10	T.	.04				T.	2.12
Wellsboro	do					.43	.20	.30					T.		.42	.33		.13	.10		.30								T.	2.21
West Chester	Coast		.09		1.10	.01	.28	.15	.11	.07					.15	.15			.04		.51									2.66
Wilkes-Barre ‖	Susquehanna		T.		.42	.02		.12		.01						.34		.02	.14		.24	.06	T.	T.		T.				1.37
Williamsport ‖	do		.04		.52	.04		.35		T.						.32		.02	.10		.23	.05						T.		1.67
New Jersey.																														
Asbury Park	Coast		.03	T.	.38		.20	T.	.70						.02	.12		.05	.08		.50									2.08
Atlantic City	do	T.	.13	.06	.15		.46	.06	.29	.14	.01				.14	.07		T.			.73		T.							2.24
Bayonne	do		.13	T.	1.73		.18	.19	.08	.07					.11	.12		.09	.02		.43	T.	T.		T.					3.15
Belvidere	Delaware			*	1.16		.14	.27							*	.54		*	.16		.50									2.77
Bergen Point	Coast		.20		1.79		.29	.31	.15	.19					.18	.22		.05			.68	T.	T.							4.06
Boonton ‖	Passaic		.10	.04	1.18	.07		.26	.04	.09	T.					.48			.17		.12	.39								2.94
Bridgeton	Coast	T.	.05		.55		*	.37	.18	.15					*	.25					.60		T.							2.15
Burlington ‖	Delaware		.17		1.29		.34	.04	.20	.12						.23			.08		.60		.02							3.09
Canton	Coast	T.	.13		.62		.50	.27	.24	.10						.43					.20									2.49
Cape May City	do	.01		.08	.11		.49	.01	.24	.23	.02				.05	.06		T.	T.	T.	.46		T.							1.76
Charlotteburg	Passaic				1.15		*	.38		.12					*	.48		.25			.44				T.					2.82
Chatham ‖	do		.15	.05	1.30	.10		.30		.05	.05					.30			.15			.35	T.							2.80
Clayton	Coast	T.	.16	T.	.50		.40	.22	*	.32					*	.52		T.			.30									2.42
College Farm	do		.30	T.	1.95		.06	.10	T.	.02	.06				T.	.30		.12	.12		.40	T.	T.	T.	T.					3.43
Culver's Lake	Delaware		.09	T.	1.04		.11	.20	.09		T.				.27	.30		.18	T.	T.	.36				T.					2.64
Dover	Passaic		.16	T.	1.23		.20	.10	.27		T.				.35			.30			.55		T.		T.					3.16
Elizabeth	Coast		.19	*	1.75		*	.30	*	.60					*	.35		.16			.45									3.80
Flemington	do		.14		1.09		.10	.15	.08	.03	.14			T.	T.	.22		.06	.05		.50		.02	T.						2.58
Haddonfield	Delaware		.13	T.	.94		.37	.17	.14	.17					.15	.11		T.	.02		.51		T.							2.71
Hammonton	Coast	T.	.10		.30		*	.61	*	.27	.13				*	.23			T.		.55		T.							2.19
Hightstown	Delaware		T.	T.	1.38		.45		.08	.20					.39			.05	.03		.60									3.18
Highwood	Bergen		.08	T.	1.49		.03	.34		.12					.12	.32		.24			.49		T.		T.					3.23
Indian Mills	Coast		.14	T.	.60		.29	.16	.11	.04	.34				.04	.24			.03		.64									2.63
Jersey City	do		.16	.02	1.72		.31	.31	.06	.10					.13	.21		.12			.60		T.		T.					3.74
Lakewood	do		.16	.02	.19		.26	.32	.13	.13	.08				.11	.20		.03	T.		.63		T.							2.26
Lambertville	Delaware		.11		.96		.19	.12	.03	.09	.05				T.	.32		.03	.04		.62						T.			2.56
Layton	do		T.	*	1.00		*	.30							*	.30		.62			.40									2.62
Little Falls	Passaic		.09	.10	1.10		.20	.18	.12						.34	.03		.18			.43		T.						T.	2.77
Long Branch	Coast		.20	T.	.73		*	.60	T.	.20	.08				T.	.40		.08	.05		.63									2.97
Mahwah ‖	Passaic				1.25				.80			T.				.72		.40			.50									3.67
Moorestown	Delaware		.11	T.	1.03		.20	.25	.06	.25					.04	.09		T.	.01		.57		.01							2.62
Newark	Passaic		.05	.02	1.20		.20	.10	.06	.05					.40			.16	.05	T.	.60		T.	T.						2.89
New Brunswick	Coast		.05	.10	1.75		.40	T.	.10	.01					*	.30		.02			.80									3.53
Newton	Delaware		T.	.03	.92		.05	.25	.12		T.				.05	.28		.23			.50				T.					2.43
Northfield	Coast	T.	.12	T.	.20		.32	.14	.10	.21	.10				T.	.16					.69									2.04
Paterson	Passaic		.12	T.	1.35		.11	.32	.02	.08	T.				.13	.31		.22			.37		T.		T.				T.	3.03
Phillipsburg	Delaware		.10	.07	.86		.17	.21	.15	T.	T.				.33	.07		.04	.10		.53		.01		T.					2.64
Plainfield	Coast		.19	.01	1.45		.29	.23	.12	.05	.08				.12	.25		.11	.06		.45		T.							3.41
Pleasantville	do		.17		.21		.30	.10	.15	.15	.13				.02	.07					.57		T.							1.87
Pompton Plains ‖	Passaic		.09	.03	1.10	.04		.46	.04	.14	.03				T.	.52			.26		.27	.26	T.	T.						3.24
Rivervale	Coast	.02	T.		1.10		.09	.06	.20	.05					.14	.60					.45									2.71
Somerville	do		.15	T.	1.21		.15	.15	.10	.05	.07			.01	.13	.28		.10	.06		.35		T.	T.						2.81
South Orange	do		.02	T.	1.54		.30	.08	.06	.06	T.				.20	.10		.10			.52		T.							2.98
Sussex	Hudson				.66		.14	.14	.10						.20	.44		.28			.40									2.36
Trenton	Delaware			.01	1.40		.20	.10	.02	.09	.02				.01	.27					.30									2.42
Tuckerton	Coast		.26	T.	.26		*	.62	.10	.21	.14				T.	.02					.50		.02							2.13
Woodbine	do	T.	.11	T.	.29		.50	.14	.05	.21	.12				T.	.08		T.			.74									2.24

TABLE 2.—*Daily precipitation for February, 1911. District No. 1*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
West Virginia.																														
Bayard	Potomac	0.05	0.15	T.	0.22		0.20	T.	0.49	T.	0.10		T.		0.15				0.12	T.	0.45	0.15	0.10	0.10					0.10	2.38
Burlington	do						.60		T.		T.				.15	T.				0.30	.40								1.45
Franklin	do						.20													.20									0.40
Harpers Ferry	do				T.		.49									0.02			T.		.81					T.			1.32
Lost City	do						.40		.07						.10					.06	.30								0.93
Martinsburg	do	T.		0.15			.60		.05						.15						.35								1.30
Moorefield	do				.15		.30	0.17	T.								T.	0.11	.21	.20								T.	1.14
Romney	do	.08			.10		.13	.40	T.	0.06	T.					.15	T.	T.	T.	T.	.30	T.							1.22
Upper Tract	do	.13					.21		T.						.03				T.	.70									1.07
Maryland.																														
Annapolis	Coast		.10		.85		*	.70	.20		.10					.34						.80							3.09
Bachmans Valley	do	T.	T.		.67		.50		.06	.04					.08	.10		T.	.04		.30								1.79
Baltimore	do	.03	.03	.10	.44		.60	T.	.26	.07					.09	.09			T.	.10	.50					T.			2.31
Cambridge	do	.12	.15		.25		.30		.53	.27	.13		0.04		.05						.84								2.68
Cheltenham	do	.10	.05		.50		.30		.50	.12	.10				.10	.01	0.07		.02		.66								2.53
Chestertown	do	.03		T.	.48		.40		.20	T.					.08	.05					.56								1.80
Chewsville	Potomac	T.		T.	.19		.48		.08	T.	T.				.11	.02			T.	T.	.46			.07		T.			1.41
Clear Spring	do		.10		.15		.40	.25	.11	.02						.17	T.	.10		T.	*	*		.73					2.03
Coleman	do	T.			.80		.21		.20	.10					.18			T.			.33								1.82
College Park	do	.10	.03		.43		.35	.04	.15	.02	.08				.07	.02			T.		.64								1.93
Cumberland	do	.05		.10			.55	.20	T.	.03	.03					.12		T.	T.	T.	.50	.02	.02						1.62
Darlington	Coast		.06	T.	.80		.40	.06	.10	T.	T.				.18	.16		T.	T.		.56								2.32
Denton	do	T.			.31		.33	.03	.06	.05	.06				T.	.10					.50								1.44
Easton	do	.05			.18		.18	.02	.16		.16					.03					.48								1.26
Emmitsburg	Potomac	T.	.17		.26		.62		.06	.08					.12	T.	.11	.06	.02		.67								2.17
Fallston	Coast	.05	.04	T.	.70		.55	.04	.14	.08	T.				.08	.09		T.	T.		.43								2.20
Frederick	Potomac	T.	.08	T.	.42		.55	.06	.17	T.					.08	.06	.04	T.		T.	.30			T.					1.76
Frostburg	do	.05			.21		.50		.05		.05				.10	.04	.05	.01	.02		.80	.03		T.					1.91
Great Falls	do	.03			.20		.10	.08		.10	.12										.35								0.98
Green Spring Furnace	do	T.			.25		.75				.02				.14	.02	.02	.02			.62								1.84
Keedysville	do	T.	T.		.11		.58	.04	.04	T.	T.				.05	.04	T.		.04		.75								1.65
Lake Montebello	Coast	T.	.03	T.	.55		.50	.01	.21	.10	T.				.03	*	.09				.42					T.			1.94
La Plata	do	.10			.58		.35		.57				.10								.47								2.17
Laurel	do	.05			.50		*	.52	.10	.15					.08	.10			T.		.70								2.20
Monrovia	Potomac	T.	.05		.30		.40	T.	.15	.05					.03	.02	T.		.01	T.	.55								1.56
Pocomoke City	Coast	.13			.19		.49		.24	.56	.04		.04		T.	T.					.60								2.29
Porto Bello	do						T.			.60	.75									.40									1.75
Princess Anne	do				.19		.45	.02	.27	.58	.02		.08								.65			T.					2.26
Salisbury	do	.05			.26		.30	.06	.15	.48	.06				.01	.02			.01		.70	T.							2.10
Solomons	do		.02	.04	.23		.15	T.	.15	.38	T.				T.	.05	T.		.01	T.	.44			T.					1.47
State Sanatorium	Potomac		.10		.22		.70	.05	.05		.05				.25	.15	.25	T.			.70				T.				2.52
Sudlersville	Coast	T.	.08	T.	.60		.45	.18	.20	.04	.20				.06	.05		T.	T.		.63		T.			T.			2.49
Takoma Park	do	.10	.07		.28		.30			.70	.20					.21					.20								2.06
Towson	do	T.	.03		.37		*	.42	.03	.09	.01				.05	.06	.02				.41								1.49
Van Bibber	do						1.26		.18	.13					.06						.55								2.18
Westernport	Potomac				.08		.58		.04						.18	.08	.02		.02	.30									1.30
Woodstock	Coast		.02		.30		.50		.07	.02	.02				.05	.06					.42								1.46
Delaware.																														
Delaware City	Coast	T.	T.	T.	.70		.20	.07	.14	T.	.20				T.	T.					.15		T.	T.					1.46
Dover	do	T.	T.		.56		*	*	.95	.10					.14	T.		T.			.20								1.95
Milford	do	.04	.08	T.	.20		.45	.16	.08	.15	T.		.20		T.	.11		T.			.68								2.15
Millsboro	do		.05	.08	.20		.25	.20	.28	.60	.11				T.	.10					.68								2.55
Seaford	do	.10		T.	.24		.21	.19	.11	.18	.15				.05	T.			T.		.82			T.					2.05
District of Columbia.																														
Washington	Coast	T.	.02	.09	.30		.45	T.	.12	.11	T.				.06	.04	T.		.01	.55	.17					T.			1.92
Virginia.																														
Culpeper	Rappahannock	.17			.12		.15		.33	.08					T.		T.			*	.58								1.43
Dale Enterprise	Shenandoah	.12		.01			.20		.26	.01					.02	.01	.02			.10	.30			T.					1.05
Eastville	Coast			T.	.21		.36	.21	.25	.57	.10	0	.07		.02	T.				.05	.45								2.29
Fredericksburg	Rappahannock	.20		T.	.26		.16		.30	.29	.03				T.	.01	T.		T.	.01	.50								1.76
Lincoln	Patomac	T.			.28		.40		.15						.15						.60								1.58
Mount Weather	do	.04		.05	.05		.24		.07	.01					.06	.10	T.		.03	.36	.50			T.					1.51
Quantico	do	.10		.33			.11		.48	.07					T.						.70								1.79
Staunton	Shenandoah	.02		.03			.13		.11	.12					.04	.04	T.		.07		.49								1.05
Stephens City	Potomac	.08	.02		.06		.40		.15						.11	.08	.02				.65								1.57
Warsaw	Rappahannock			T.	.60		.35	.25	.48	.50	.15		.18	0.05	0					T.	.80								3.36
Woodstock	Shenandoah	.07		.05			.30	.09					.02	.05			.02	.02	T.	.63									1.25

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 1, North Atlantic States.*

Date.	Maine.												Concord, N. H.		Massachusetts.								Providence, R. I.		Connecticut.			
	Eastport.		Greenville.		Orono.		Portland.		Presque Isle.		Rumford.				Amherst.		Boston.		Middleboro.		Nantucket.				Cream Hill.		Hartford.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	8	− 3	5	−12	12	− 6	18	2	10	−11	12	− 2	20	4	29	6	25	14	27	9	25	20	28	13	26	8	29	15
2	9	− 2	− 2	−13	12	−15	9	3	4	−18	7	0	15	8	21	13	32	13	33	13	43	23	32	14	28	18	25	16
3	20	3	13	−13	14	− 9	14	3	5	−23	14	−12	20	4	22	5	21	11	25	11	32	22	22	11	20	0	25	10
4	44	20	33	0	43	− 7	43	12	31	− 7	36	8	39	15	40	20	50	20	50	19	48	32	49	19	36	18	44	25
5	36	1	34	− 3	44	17	36	2	31	3	32	0	37	1	37	10	38	16	42	27	39	22	40	17	32	21	39	14
6	7	− 5	0	−15	22	−12	10	0	17	−15	12	− 3	13	− 2	10	2	24	4	28	5	28	18	17	6	24	2	14	6
7	20	6	12	− 9	12	− 2	16	6	6	−17	18	6	19	8	23	9	29	17	32	17	36	28	29	14	22	8	24	13
8	22	17	17	− 4	23	10	22	13	21	0	22	10	25	18	24	12	27	19	31	19	33	29	27	17	30	15	27	17
9	28	20	26	14	30	16	31	17	31	16	33	19	36	20	32	20	32	27	35	24	34	30	37	24	30	22	34	23
10	30	23	27	18	34	17	30	24	25	10	34	24	31	23	32	20	37	29	35	27	36	30	34	28	31	18	36	28
11	23	10	20	4	31	13	30	17	22	5	25	4	29	10	32	19	36	24	34	15	35	27	34	25	32	19	36	23
12	14	7	19	0	21	1	21	13	11	−23	21	− 2	28	7	36	12	33	27	41	13	42	28	41	27	36	24	42	27
13	16	2	17	−15	20	−20	19	13	13	−27	23	−10	25	20	36	28	28	24	35	26	36	32	34	27	35	28	41	32
14	16	7	13	−17	17	−22	17	8	13	−29	19	−11	22	14	28	18	31	17	29	24	35	27	28	18	31	22	32	19
15	13	− 1	11	−14	18	−17	17	0	13	−18	22	−16	22	− 5	27	6	22	6	24	12	28	19	20	8	22	6	22	10
16	33	8	35	− 1	38	−16	39	2	31	0	38	2	42	− 9	41	−3	41	11	40	− 6	34	21	41	8	35	0	37	1
17	36	20	30	7	37	− 2	36	20	31	− 7	40	8	38	7	36	11	39	30	36	7	39	27	38	23	34	14	37	16
18	35	23	34	19	36	25	42	27	31	7	38	24	41	29	41	30	46	33	43	35	40	32	44	32	36	24	43	33
19	23	11	20	3	35	10	27	11	21	5	22	8	29	9	30	15	33	17	40	21	32	25	32	18	24	16	33	20
20	17	8	17	− 9	21	− 7	17	8	13	−14	18	0	18	5	19	12	24	15	26	14	31	25	21	16	22	9	22	14
21	16	9	12	0	19	0	23	8	19	− 3	16	6	21	10	23	2	28	13	25	10	28	17	25	11	21	6	23	11
22	26	10	22	4	26	6	32	12	25	1	28	13	30	12	32	6	35	12	31	4	30	15	31	11	29	3	33	9
23	21	8	22	0	27	3	26	8	23	− 5	24	7	28	10	28	12	31	15	29	9	32	18	30	12	30	5	29	13
24	29	14	24	8	36	14	36	17	26	− 1	29	14	34	17	37	18	41	26	40	23	36	28	38	26	38	18	38	24
25	31	9	30	3	36	− 6	42	17	22	−10	37	8	46	15	52	22	49	27	47	24	42	25	48	26	47	21	51	26
26	39	24	33	14	45	3	42	24	40	− 2	40	10	52	18	50	28	56	37	54	22	45	33	49	33	50	27	54	32
27	45	18	37	15	45	28	48	17	42	14	42	14	46	16	45	22	50	25	49	35	48	28	49	24	42	30	49	24
28	18	4	16	− 7	38	1	20	8	14	− 4	14	2	20	7	24	15	25	16	39	12	28	21	25	18	30	10	25	18
Mns.	24.1	9.7	20.6	−0.8	28.3	0.8	27.2	11.1	21.1	−6.2	25.6	4.7	29.5	10.4	31.7	13.9	34.4	19.5	35.7	16.9	35.5	25.1	33.7	18.8	31.2	14.7	33.7	18.5

Date.	New Haven, Conn.		New York.												Pennsylvania.												Asbury Park, N. J.	
			Addison.		Albany.		Binghamton.		Indian Lake.		Little Falls.		New York.		Everett.		Harrisburg.		Philadelphia.		Scranton.		State College.		Wellsboro.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	35	18	28	15	22	10	29	13	24	−12	23	7	35	24	34	25	32	28	35	29	33	18	30	24	28	15	32	25
2	29	21	44	27	31	12	40	12	22	3	30	4	43	20	54	32	44	29	46	32	41	15	45	28	45	26	43	30
3	30	11	34	7	25	4	28	7	25	−20	17	− 5	38	15	41	18	30	19	34	18	30	10	31	13	36	7	43	14
4	45	30	41	25	44	24	40	27	35	13	36	15	46	36	41	21	43	28	48	30	40	28	38	25	38	23	50	30
5	38	16	33	19	37	7	33	7	32	5	32	2	38	19	39	18	37	23	42	25	35	10	35	18	39	17	46	29
6	16	10	30	8	10	3	18	4	9	−20	6	− 7	27	17	23	18	23	17	27	17	16	9	22	13	18	9	36	28
7	26	16	32	16	24	9	29	18	19	0	21	3	30	26	31	20	33	18	33	27	30	14	31	17	30	15	38	30
8	29	21	34	19	28	21	31	27	29	14	25	19	34	26	32	19	33	30	36	30	32	27	32	17	30	23	37	30
9	35	23	45	23	32	15	33	15	27	18	27	18	35	29	35	21	34	28	36	31	36	27	33	24	36	27	34	30
10	37	29	34	12	34	9	29	12	26	−15	25	15	35	29	33	18	33	25	38	31	32	27	29	20	35	10	35	29
11	36	25	40	20	33	17	34	19	24	15	23	15	35	25	40	14	37	20	39	28	35	23	38	11	37	13	36	22
12	45	27	36	18	35	10	37	28	30	8	32	14	45	29	45	20	45	24	51	32	40	23	44	22	38	33	47	28
13	42	36	40	33	22	17	41	35	32	17	33	16	43	39	44	31	44	36	47	39	43	36	39	33	36	32	48	36
14	36	22	37	29	18	13	36	23	25	13	21	14	41	26	42	28	39	31	41	32	39	24	37	32	35	23	42	33
15	24	13	34	24	19	4	27	7	32	− 9	18	8	28	19	37	28	31	23	32	24	29	17	33	25	36	13	35	23
16	40	7	48	24	25	− 8	38	2	47	−19	26	− 5	37	15	32	26	34	25	36	24	40	18	33	24	38	23	38	14
17	37	23	41	31	41	9	41	30	45	11	40	15	40	29	44	30	42	32	45	33	39	33	56	30	38	29	37	28
18	42	35	44	33	41	33	37	30	44	23	39	27	45	35	63	36	47	37	48	40	40	32	56	31	38	32	43	36
19	35	22	33	18	33	14	30	12	28	7	31	10	35	27	37	24	37	25	40	30	32	18	34	27	34	20	40	30
20	24	15	26	13	19	12	20	12	19	−10	19	4	28	22	31	24	29	22	30	24	24	16	27	19	23	13	31	25
21	26	13	24	10	19	6	15	2	16	0	17	0	27	16	25	16	28	21	31	23	20	13	23	13	22	9	28	14
22	33	9	36	6	34	12	29	2	23	− 2	29	8	33	16	30	15	33	18	37	21	31	12	29	14	31	8	34	12
23	31	15	40	9	35	14	32	12	24	5	26	5	30	19	36	26	36	22	36	23	34	16	33	17	37	10	34	13
24	41	26	39	27	38	26	30	22	28	17	32	17	40	27	54	30	40	27	44	29	35	27	35	26	37	26	41	26
25	50	29	56	28	50	27	48	22	42	12	40	16	47	31	57	31	55	34	54	33	52	30	49	30	46	26	49	28
26	49	32	51	24	49	32	50	26	50	13	42	27	56	39	57	27	57	35	63	40	56	32	53	31	49	24	47	35
27	50	27	46	28	47	22	45	20	41	15	42	18	51	29	45	39	51	32	55	37	48	22	47	28	47	27	56	41
28	28	20	29	17	24	14	21	13	17	0	19	4	29	23	41	23	33	26	37	27	25	18	30	20	29	17	50	24
Mns.	35.3	21.1	37.7	20.1	31.0	13.9	32.9	16.4	29.1	3.6	27.5	10.1	37.5	25.2	40.1	24.2	37.9	26.2	40.8	28.9	35.2	21.2	36.5	22.6	35.2	19.6	40.4	26.5

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 1*—Continued.

Date.	New Jersey.										Martinsburg, W. Va.		Maryland.								Millsboro, Del.		Washington, D. C.		Virginia.					
	Asbury Park.		Atlantic City.		Hightstown.		Newton.		Phillipsburg.				Baltimore.		Darlington.		Frederick.		Westernport.						Culpeper.		Fredericksburg.		Staunton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	32	25	37	29	32	25	30	14	31	20	36	25	36	31	.....	.....	35	30	34	27	41	25	38	30	36	29	47	30	40	28
2....	43	30	48	33	41	29	33	25	42	23	58	32	49	33	45	27	50	32	60	32	57	40	54	35	60	34	61	36	71	32
3....	43	14	40	19	41	15	37	9	30	13	37	24	38	24	41	19	43	24	45	26	42	23	38	27	54	26	55	26	41	25
4....	50	30	48	38	44	25	38	21	41	30	51	24	54	31	48	26	52	30	46	31	56	32	55	30	60	31	64	31	59	26
5....	46	29	40	24	43	29	42	22	36	17	37	32	41	29	45	25	48	30	43	28	45	29	41	28	52	26	60	26	46	28
6....	36	28	38	21	29	17	22	9	21	13	34	22	29	20	28	17	31	20	41	23	39	23	28	22	33	23	38	26	32	24
7....	38	30	40	29	37	17	25	9	30	16	36	20	38	26	32	19	35	20	41	23	42	30	41	24	38	24	45	25	50	24
8....	37	30	37	27	34	24	29	24	31	26	35	22	35	30	32	23	34	24	40	25	42	27	36	28	37	27	40	30	41	29
9....	34	30	36	33	33	25	.....	15	33	22	35	28	35	31	34	22	34	28	47	27	40	33	35	28	35	32	38	33	36	34
10....	35	29	37	28	37	27	40	22	34	26	34	22	38	26	34	21	34	20	35	23	45	25	37	23	38	27	42	27	38	27
11....	36	22	39	24	38	20	32	21	38	23	40	19	43	25	37	18	40	20	43	19	42	21	45	22	44	17	46	16	43	22
12....	47	28	52	36	48	25	42	19	48	19	50	21	52	34	49	18	48	28	41	30	57	32	53	32	53	29	58	33	57	28
13....	48	36	44	34	49	32	41	34	42	35	52	28	50	35	48	30	48	27	52	30	58	25	59	29	57	25	64	29	60	28
14....	42	33	41	35	41	30	41	21	37	23	45	28	43	35	42	30	43	32	51	35	50	32	49	35	53	32	57	29	56	28
15....	35	23	36	26	32	22	26	16	25	19	33	31	36	27	33	24	40	28	41	31	40	30	36	28	46	28	50	31	36	34
16....	38	14	37	21	41	10	.....	.....	38	9	37	29	37	28	35	24	37	27	33	30	40	29	38	28	37	28	39	30	40	30
17....	37	28	47	30	36	25	.....	.....	36	26	66	29	50	36	42	30	49	34	62	33	49	31	49	36	49	28	51	36	64	33
18....	43	36	48	39	41	36	42	33	41	35	52	36	55	41	49	42	51	42	64	39	53	42	57	41	53	46	59	46	67	38
19....	40	30	41	30	40	30	36	26	35	24	49	31	41	28	43	29	44	30	39	28	43	32	41	32	46	32	48	35	35	32
20....	31	25	35	25	32	21	.....	.....	24	19	35	27	36	26	35	23	35	26	36	27	37	30	36	27	38	30	40	31	43	27
21....	28	14	30	18	31	10	24	10	30	9	31	20	32	22	29	15	32	18	30	21	35	21	32	22	37	22	39	21	31	19
22....	34	12	34	20	35	7	30	14	35	8	34	18	37	22	34	13	35	20	30	16	38	21	36	21	36	17	41	18	30	16
23....	34	13	35	21	35	13	.....	.....	34	16	39	22	40	27	36	17	39	25	37	25	44	24	43	28	49	24	49	25	45	22
24....	41	26	44	31	43	23	37	24	41	26	42	26	44	33	41	25	43	30	55	28	47	27	46	29	52	28	51	25	48	26
25....	49	28	57	34	51	24	48	25	51	27	58	33	60	33	55	27	58	32	59	30	61	29	63	33	62	23	68	24	61	30
26....	47	35	48	39	64	31	52	30	58	31	62	31	64	38	61	32	60	30	45	30	68	32	68	33	67	28	72	31	61	35
27....	56	41	56	34	54	39	49	.....	50	29	54	35	57	40	55	32	55	43	52	30	65	41	58	40	63	41	70	49	64	48
28....	50	24	36	26	46	23	40	20	32	22	37	27	40	29	45	24	47	28	49	27	43	25	40	28	51	28	60	30	44	29
Mns..	40.4	26.5	41.5	28.7	40.3	23.4	36.3[a]	20.1[a]	36.6	21.6	43.2	26.5	43.2	30.0	41.0[a]	24.1[a]	43.1	27.8	44.7	27.6	47.1	29.9	44.7	29.2	47.7	28.0	51.9	29.6	47.8	28.5

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 2, SOUTH ATLANTIC AND EAST GULF STATES.

CHARLES F. VON HERRMANN, District Editor.

GENERAL SUMMARY.

Very distinctive climatic features characterized the month of February throughout the district. Despite the marked cold wave at the beginning of the second decade, during which the temperature fell below freezing over the district to the Gulf and Atlantic coasts and southward into Florida, the month as a whole was extremely warm, the excess in temperature at individual stations ranging from 1° in southern Florida to over 11° in northern Alabama and portions of the Mississippi area. The only previous February comparable in this respect with the current month was February, 1890, which was even warmer. In South Carolina, February, 1909, was slightly warmer; and in Florida February, 1897, was warmer than the current month. The State mean temperature for Georgia was 2° higher than the previous highest record for February, and with the single exception of January, 1907, no winter month in Georgia since 1892 has been so warm. The maximum temperature for the month in Georgia is the highest winter temperature on record. Although the extremes were not so marked in Alabama and Mississippi the daily excess in temperature during most of January and the first 20 days of February was over 10°, a period of warmth quite without an equal.

The record of precipitation also is noteworthy. The month was extremely dry, the State deficiencies ranging from 1.26 inches for the Virginia area to 3.30 inches for Florida. The smallest amounts of rain, generally less than 1 inch, were received in Florida and along the Gulf and Atlantic coasts, gradually increasing to over 5 inches at a few places in northern Georgia, Alabama, and the Mississippi area. The deficiency in rainfall was most remarkable in Florida; of 60 stations reporting, 19 received no rainfall whatever or only a trace, 16 places received 0.10 inch or less, and only 5 over half an inch. The number of days with precipitation ranged from only 1 in Florida to an average of 8 in Virginia, and 7 in Alabama and Mississippi.

The district came under the influence of about 10 moderate areas of low and 7 areas of high atmospheric pressure during the month. The slight depression that moved from Colorado to Illinois on the 6th, and the subsequent disturbance that moved from southern Texas to central Georgia on the 9th inaugurated the periods of general but moderate rains that lasted from the 6th to the 12th in the northern portions of the district. The depression that moved from southern Texas to Louisiana on the 19th, thence to the coast of North Carolina on the 20th, brought rains on the 19th–20th, which were followed by the only severe cold wave that occurred during the month. The lowest atmospheric pressure for the district was generally registered on the morning of the 20th, the minimum being 29.64 inches at Hatteras, N. C. The area of high pressure following this disturbance, although it was over 31 inches in the northwest on the morning of the 20th, and still 31 inches in Kansas on the morning of the 21st, did not give the highest pressure for the district; the highest pressure was generally registered on the 16th or 17th, with the maximum 30.64 inches at Norfolk, Va., giving a range of 1 inch for the month.

Except in Florida, the month was also characterized by considerable cloudiness and frequent dense fogs, especially in Georgia. The severe freeze on the 22d and 23d greatly injured vegetation, which was in an advanced stage of growth in some sections. At the latitude of Atlanta the leaves of roses and other low shrubs were frozen and killed and flower buds were blighted. The peach crop was greatly damaged.

TEMPERATURE.

The temperature was above normal over the entire district during February, the excess being greatest in the northern portion of the Gulf States. Along the entire Atlantic coast line the departures were moderate, and especially so in the extreme southern portion of Florida. The State means for Florida and Virginia show an excess of about 4°, for South Carolina and Georgia about 6°, for Alabama 8°, and for the Mississippi area over 9°. The mean temperature for the entire district was 53° and the departure +6.2°. The lowest State mean was 42° for Virginia, and the highest 63° for Florida. Since the mean temperature for January, 51°, was 5° above the normal, the first two months of the year 1911 show a marked excess in temperature.

Very warm weather prevailed at the beginning of the month, with the highest temperatures for the month on the 2d at many places in North Carolina and Georgia; a period of moderately cooler weather followed about the 10th, which was succeeded by a second period of pronounced high temperatures, especially from the 15th to the 19th (20th in Florida). A marked cold wave began on the 20th and lasted for several days, with temperatures below freezing on the mornings of the 21st to 23d, causing much damage to vegetation and crops. During this period the lowest temperature in Virginia was 11°, at Hot Springs; in North Carolina, 14°, at Lenoir; in Georgia, 13°, at Diamond; in Alabama, 17°, at Hamilton; and in South Carolina and the Mississippi area, 20°, at many places, all occurring on the morning of the 22d. The cold wave overspread the Peninsula of Florida with freezing weather and killing frosts as far south as De Soto County on the 23d, 24th, and 25th; the line of freezing did not extend so far south on the east coast. The lowest temperature in Florida was 23° on the 23d at Molino. Subsequently the temperature rose again, reaching the highest for the month at places in South

Carolina, Georgia, and Mississippi. The maximum temperature for the district was 89°, on the 20th, at Malabar, Fla., closely followed by 87°, on the 2d and 28th, at Valdosta, Ga. The highest temperatures for the month exceeded 80° in all the States in the district, except Virginia.

The highest monthly mean temperature was 71.5, at Key West, Fla., and the only other point with a February mean above 70° was Miami, Fla., with 70.2°. The lowest monthly mean temperature was 36° at Hot Springs, Va., and the only other place with a monthly mean below 40° was Lexington, Va., with 38.2°. The range in monthly mean temperatures in the various States was unusually small for the season of the year; in the southern portion of the Gulf States the means ranged mostly between 55° and 60°, in the northern portion and in the Atlantic States from 45° to 55°.

PRECIPITATION.

As already mentioned, February was characterized by a remarkable deficiency in precipitation, which was especially noteworthy in Florida, where no less than 19 stations received practically no rain, a condition usually associated only with the arid regions of the West. The average precipitation for the district was 2 inches, indicating a deficiency of 2.70 inches. The rainfall was under 2 inches over southeastern Alabama, the whole of Florida, the southern half of Georgia, and the eastern portions of North and South Carolina. It exceeded 4 inches over very limited areas in northwestern Georgia, northern Alabama, and Mississippi. The greatest monthly amount in the district was 6.61 inches, at Booneville, Miss., closely followed by 5.63 inches, at Hamilton, Ala., and 5.60 inches at Lafayette, Ga. A rainfall of 2.50 inches or more in 24 hours occurred at but one station, namely, Liberty, S. C., 2.84 inches, on the 11th. Outside of Florida, where so many stations received no rain, the smallest monthly total was 0.08 inch at St. George, Ga. The rainfall was somewhat more evenly distributed in Virginia, where the deficiency was least. The number of days with rain averaged about 6 for the district.

Scattered showers occurred in the northern portion of the district on the 1st, 3d, and 4th. The longest period of consecutive days with rain occurred from the 6th to 12th, during which, however, the rainfall was mostly light and showery. Another general rain occurred on the 19th–20th, while the last decade was very dry. The following brief details in regard to the distribution of precipitation in the various States may be given: In Virginia much cloudy, unsettled, and disagreeable weather with frequent light showers occurred up to the 20th, but the close of the month was fine. The rainfall was less than any previously recorded at some places in the southeastern portion of North Carolina. In South Carolina the average rainfall, 1.60 inches, is the next smallest on record for February (smallest average, 0.86 inch in 1898). In Georgia the State average was the third lowest in 20 years, and the amounts the least ever recorded for February in the southwestern portion. In Florida the month was the dryest in the history of the section, the average rainfall for the month being only 0.19 inch, or 3.30 below the normal. Most of the rain fell on the 9th and 20th. It is rather unusual to find so severe a drought prevailing in a semitropical locality usually supplied with copious precipitation. At Key West, for example, the total rainfall for the month was 0.01 inch, the lowest recorded for February. The total amount of rainfall at this place since November 1, 1910, is only 2.18 inches, which is about 505. inches below the normal. As a consequence of the drought many cisterns are dry and rain is seriously needed. The dry weather in central Florida, however, was to some extent beneficial, as it retarded the growth of citrus fruits, which were consequently not greatly injured by the cold weather of the 21st to 26th. The greatest State averages of precipitation occurred in Alabama and Mississippi, where the rainfall was more evenly distributed, at least in the northern portions.

Very light snow fell in Virginia on the 6th, 11th, and 18th, with the largest amount, 2.7 inches (unmelted), at New Castle. Very small amounts of snow also fell in western North Carolina and northern Georgia, mostly on the 11th. The largest amount in North Carolina was 2.5 inches, at Mount Airy, and in Georgia, 3 inches, at Clayton.

RIVER CONDITIONS.

Flood stages were not attained in any of the rivers in the district during February. Very low stages were registered during the early and latter part of the month, with a moderate rise between. The mean stages were much below the normal. The Yadkin River at Cheraw, for instance, was 7.1 feet below normal, and the Cape Fear at Fayetteville was 6.1 feet below normal. Similar conditions prevailed in most of the rivers in the district. In Alabama, owing to local heavy rains at the close of the first decade, moderate freshets occurred in the lower Black Warrior and Tombigbee Rivers during part of the second decade. That there has been almost no surface flow of rain water into the rivers is indicated by the rare circumstance that many rivers, such as the Chattahoochee in Georgia, have become as clear as mountain streams, though usually they are very muddy.

MISCELLANEOUS PHENOMENA.

The wind movement was small for a winter month, the average hourly velocity exceeding 10 miles only at Hatteras, Atlanta, and Pensacola. The maximum velocity reported was 60 miles an hour from the south on the 11th at Pensacola, gales of 40 miles an hour or more occurring at no other station. Along the Gulf coast the prevailing winds were from the south or southeast, and in the interior from the west or southwest. The average number of clear days was 12, ranging from 8 in Mississippi to 17 in Florida; the average number of partly cloudy days was 8, and of cloudy days 8. Dense fog prevailed at a large number of stations, especially in Georgia, occurring on 7 days at Atlanta, 5 days at Augusta, 11 days at Macon, 5 at Savannah, and 8 at Thomasville. Thunderstorms occurred at many stations in Alabama and Georgia on the night of the 3d–4th. During the thunderstorm of that date at Montgomery, Ala., a severe squall struck Cloverdale, a suburban residence section about 1¾ miles from the Weather Bureau office, where, however, the wind only attained a maximum velocity of 23 miles. At Cloverdale chimneys were blown down, many trees uprooted, some porches damaged, and a few persons were slightly injured.

TABLE 1.—*Climatological data for February, 1911. District No. 2, South Atlantic and east Gulf States.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Virginia.																				
Arvonia	Buckingham	350	7	41.4	+4.4	72	26	17	22	40	2.01	− 1.23	0.54	T.	10	10	8	10	n.	Rev. Plummer F. Jones.
Ashland	Hanover	221	20	40.2	+2.3	68	26	21	22	33	2.26	− 0.65	0.70	0.0	6	10	9	9	s.	E. L. C. Scott.
Buchanan	Botetourt	820	7	.....	.....	.....	.....	.....	.....	.....	2.01	.....	0.50	0.5	8	6	1	21	w.	D. D. Booze.
Callaville	Brunswick	250	17	42.1	+ 4.8	70	2†	19	22	36	2.96	− 0.89	0.80	0.0	9	11	11	6	ne.	F. M. Gage.
Cape Henry	Princess Anne	20	37	42.6	+ 1.4	71	2	27	22	30	1.84	− 1.95	0.66	0.0	7	9	9	10	n.	U. S. Weather Bureau.
Catawba	Roanoke	1,760	1	42.0	.....	66	2	16	22	33	2.12	.....	0.61	1.0	7	5	16	7	sw.	State Board of Health San.
Charlottesville	Albemarle	800	22	41.2	+ 5.1	71	2	17	22	39	1.31	− 1.90	0.44	1.4	7	10	5	13	ne.	Leander McCormick Obsy.
Clarksville	Mecklenburg	.....	17	.....	.....	.....	.....	.....	.....	.....	2.04	.....	0.76	0.0	7	.....	.....	.....	.....	J. A. Ligon.
Columbia	Fluvanna	246	13	40.7	+ 2.7	70	26	19	11†	43	1.63	− 1.48	0.49	0.0	7	14	2	12	sw.	Chesapeake & Ohio Ry.
Danville	Pittsylvania	413	11	.....	.....	.....	.....	.....	.....	.....	1.67	− 1.88	0.71	T.	7	.....	.....	.....	.....	C. G. Watkins.
Diamond Springs	Princess Anne	20	1	44.2	+ 2.9	72	2	24	11†	39	2.23	− 1.46	0.60	0.0	7	14	1	13	.....	Va. Truck Exp. Station.
Hampton	Elizabeth City	5	28	43.4	+ 3.2	69	2	25	22	29	2.55	− 1.14	0.58	0.0	10	12	9	7	sw.	Normal and Agr. Inst.
Hot Springs	Bath	2,195	19	36.0	+ 5.7	76	17	11	22	....	1.22	− 2.11	0.40	.....	8	6	16	6	.....	Dr. Kurt Linnert.
Ivor	Southampton	87	2	.....	.....	.....	.....	.....	.....	.....	2.77	.....	0.70	0.0	12	.....	.....	.....	.....	N. & W. Ry. Exp. Farm.
Lassiter	Goochland	100	1	.....	.....	.....	.....	.....	.....	.....	2.65	.....	0.75	T.	6	14	5	9	.....	T. J. Davis.
Lexington	Rockbridge	1,060	34	38.2	+ 3.2	73	2	16	22	44	1.32	− 1.88	0.47	0.9	7	13	4	11	.....	Va. Military Institute.
Lynchburg	Campbell	685	40	41.2	+ 3.0	71	2	20	22	35	1.23	− 2.26	0.39	0.4	9	7	11	10	nw.	U. S. Weather Bureau.
New Castle	Craig	1,300	2	.....	.....	.....	.....	.....	.....	.....	4.36	.....	1.14	2.7	8	.....	.....	.....	.....	Miss J. L. Martin.
Newport News	Warwick	55	8	44.6	.....	70	2	25	22	31	2.71	.....	0.71	0.0	11	10	10	8	nw.	C. W. Ashby.
Norfolk	Norfolk	91	41	43.8	+ 2.0	71	2	25	22	29	2.18	− 1.57	0.79	0.0	8	10	8	10	ne.	U. S. Weather Bureau.
Petersburg	Dinwiddie	60	24	.....	.....	70	2†	22	12†	35	2.33	− 1.35	.....	0.0	8	19	0	9	w.	Central State Hospital.
Randolph	Charlotte	334	37	.....	.....	.....	.....	.....	.....	.....	2.62	.....	0.72	0.0	9	.....	.....	.....	.....	H. G. Holt.
Richmond	Henrico	144	32	41.0	+ 1.1	70	26	21	22	32	2.20	− 0.90	0.57	0.0	10	8	6	14	ne.	U. S. Weather Bureau.
Rocky Mount	Franklin	1,150	17	42.6	+ 5.6	72	2	17	22	41	1.93	− 1.74	0.57	T.	8	15	0	13	nw.	G. W. B. Hale.
Saxe	Charlotte	350	8	42.1*	.....	72	27	19	22	45	2.52	.....	0.70	0.0	6	18	2	8	ne.	State Experiment Farm.
Spottsville (near)	Surry	15	23	43.5	+ 3.8	70	18†	20	11	32	3.06	− 1.15	1.00	T.	10	8	9	11	sw.	B. W. Jones.
Williamsburg	James City	70	20	44.1	+ 4.4	70	27	22	23	35	2.62	− 1.07	0.70	T.	8	11	9	8	sw.	Eastern State Hospital.
North Carolina.																				
Beaufort	Carteret	10	10	49.8	+ 2.6	67	27	29	22†	24	0.95	− 3.49	0.45	0.0	8	13	7	8	sw.	H. D. Aller.
Belhaven	Beaufort	4	2	48.0	.....	77	2	22	11	40	1.15	.....	0.47	0.0	3	12	2	14	nw.	W. S. Hopkins.
Brewers	Wilkes	1,950	14	45.0	+ 8.8	73	2	18	22	40	2.18	− 2.40	0.74	0.5	9	7	11	10	w.	W. L. Brewer.
Caroleen	Rutherford	806	11	49.0	+ 8.3	76	18	18	22	39	2.11	− 3.53	0.63	T.	5	10	10	8	ne.	S. B. Tanner.
Chalybeate Springs	Harnett	500	5	46.7	.....	76	18	18	22	44	1.89	.....	1.04	0.0	8	15	3	10	nw.	J. A. Smith.
Chapel Hill	Orange	500	53	46.5	+ 3.5	76	18	19	22	37	2.56	− 1.56	0.86	0.0	8	14	7	7	sw.	Prof. A. H. Patterson.
Charlotte	Mecklenburg	773	35	47.7	+ 3.6	75	18	21	22	28	1.93	− 2.46	0.84	0.1	10	12	6	10	sw.	U. S. Weather Bureau.
Chimney Rock	Rutherford	1,150	1	49.6	.....	79	18	21	21	40	2.05	.....	0.70	0.0	6	18	2	8	w.	J. M. Flack.
Durham (near)	Durham	406	2	.....	.....	.....	.....	.....	.....	.....	2.37	.....	1.00	0.0	6	.....	.....	.....	.....	J. H. Michie.
Eagletown	Northampton	66	6	44.8	.....	72	2	22	22	34	3.02	.....	0.95	0.0	8	10	12	6	sw.	J. T. Elliott.
Edenton	Chowan	30	17	44.0	+ 3.1	73	18	23	22	34	2.50	− 2.36	1.00	0.0	6	10	6	12	ne.	E. R. Conger.
Elizabethtown	Bladen	60	.....	.....	.....	.....	.....	.....	.....	.....	0.50	.....	0.43	0.0	3	.....	.....	.....	.....	J. W. Hall, jr.
Enfield (near)	Halifax	99	.....	.....	.....	.....	.....	.....	.....	.....	3.04	.....	1.94	0.0	3	.....	.....	.....	.....	T. S. Inborden.
Fayetteville	Cumberland	170	24	48.7	+ 5.3	79	18	22	22	39	0.88	− 3.75	0.28	0.0	7	10	3	15	nw.	Frank Glover.
Garland	Sampson	139	....	50.1[k]	.....	78[k]	18	24[k]	21	38[k]	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. G. Herring.
Goldsboro	Wayne	102	41	45.3	+ 0.7	75	2	20	24	40	1.29	− 2.61	0.46	T.	6	.....	.....	.....	w.	Mrs. N. B. Taylor.
Graham	Alamance	656	9	.....	.....	.....	.....	.....	.....	.....	2.71	.....	1.08	0.0	7	.....	.....	.....	.....	Dr. W. R. Goley.
Greensboro	Guilford	843	30	44.3	+ 3.5	74	2†	18	22	41	1.97	− 2.60	1.00	0.0	4	.....	.....	.....	sw.	A. H. Horry.
Greenville	Pitt	75	18	.....	.....	.....	.....	.....	.....	.....	1.51	− 1.80	0.60	0.0	11	.....	.....	.....	.....	R. M. Hearne.
Hatteras	Dare	11	37	47.8	+ 1.2	64	20	30	22	21	0.88	− 3.60	0.36	0.0	5	11	9	8	ne.	U. S. Weather Bureau.
Henderson	Vance	508	18	43.8	+ 5.6	71	2†	19	22	32	2.99	− 1.83	1.29	0.0	9	11	8	9	ne.	Enoch Powell.
Kings Mountain (near)	Gaston	952	....	49.4	.....	78	18	20	22	42	2.17	.....	.....	0.0	7	8	14	6	w.	Rev. C. J. Strang.
Kinston	Lenoir	46	13	48.8	+ 5.5	79	2	24	11†	42	1.24	− 2.94	0.61	0.0	6	12	5	11	sw.	H. C. V. Peebles.
Lenoir	Caldwell	1,186	38	45.3	+ 4.3	75	2†	14	22	46	2.61	− 1.68	0.76	0.5	7	19	1	8	s.	G. M. Goforth.
Lincolnton	Lincoln	994	6	44.2	.....	77	18	16	22	43	1.97	.....	.....	T.	7	8	13	7	nw.	S. P. Houser.
Louisburg	Franklin	375	20	44.7	+ 5.6	72	2	22	22†	38	2.80	− 1.67	1.25	0.0	6	13	7	8	nw.	T. B. Wilder.
Lumberton	Robeson	102	28	49.0	+ 7.8	78	18	25	11†	44	0.56	− 4.36	0.50	0.0	3	.....	.....	.....	ne.	B. M. Davis.
Manteo	Dare	12	6	46.2	.....	72	18	24	22	32	0.94	.....	0.48	0.0	5	11	6	11	ne.	U. S. Weather Bureau.
Marion	McDowell	1,425	19	47.0	+ 7.4	80	2†	15	22	43	2.24	− 2.94	0.73	1.3	8	14	9	5	e.	Sergt. Thos. McGuire.
Moncure	Chatham	145	17	46.1	+ 6.1	76	18	18	22	44	2.36	− 2.02	0.93	0.0	7	13	2	13	nw.	B. J. Utley.
Monroe	Union	586	17	47.6	+ 6.7	75	18	20	22†	39	1.83	− 2.93	0.90	0.0	5	14	6	8	ne.	T. A. Ashcraft.
Morganton	Burke	1,135	24	47.8	+ 8.0	77	18	18	22	38	2.21	− 2.54	0.77	0.2	6	17	5	6	nw.	H. D. Judd.
Mount Airy	Surry	1,048	23	44.3	+ 6.4	71	18	19	22	39	1.98	− 1.80	0.70	2.5	7	15	5	8	nw.	Prof. A. H. Merritt.
Mount Holly	Gaston	616	14	.....	.....	.....	.....	.....	.....	.....	2.32	− 1.95	0.80	0.0	7	.....	.....	.....	.....	J. W. Holland.
Nashville	Nash	190	7	46.0	.....	75	2	21	22	36	3.33	.....	1.42	0.0	7	8	5	15	n.	J. B. Boddie.
Newbern	Craven	12	29	47.0	+ 1.2	78	2	22	22†	46	0.92	− 3.89	0.41	0.0	5	.....	.....	.....	ne.	J. B. Hill.
Pinehurst	Moore	650	7	48.4	.....	76	18	20	22	31	2.18	.....	0.77	0.0	8	15	5	8	s.	General Office.
Raleigh	Wake	390	40	46.0	+ 2.7	74	18	22	22	32	2.52	− 1.82	1.22	0.0	9	10	6	12	ne.	U. S. Weather Bureau.
Ramseur	Randolph	442	4	45.4	.....	78	27	18	22	47	1.67	.....	0.45	0.0	9	15	13	0	n.	A. H. York.
Randleman	....do	810	6	.....	.....	.....	.....	.....	.....	.....	2.21	.....	0.62	0.0	5	.....	.....	.....	.....	J. R. Walton.
Reidsville	Rockingham	828	12	45.4	+ 7.7	74	18	23	22	39	1.66	− 2.26	0.67	0.0	7	14	1	13	sw.	E. M. Redd.
Rockingham	Richmond	210	19	47.8[c]	+ 4.9	80	17†	21	20	40[c]	0.76	− 4.01	0.50	0.0	3	.....	.....	.....	.....	H. S. Ledbetter.
Rocky Mount	Nash	105	.....	.....	.....	.....	.....	.....	.....	.....	3.30	.....	1.10	0.0	6	.....	.....	.....	.....	G. P. Womble.
Roxboro	Person	600	12	42.6	+ 4.4	71	18	19	22	32	2.12	− 2.47	0.95	0.0	9	12	0	16	n.	N. Lunsford.
Salem	Forsyth	1,000	16	44.4	+ 6.1	72	2†	19	22	40	2.62	− 2.20	0.76	0.0	6	.....	.....	.....	.....	Rev. H. E. Rondthaler.
Salisbury	Rowan	760	27	49.0	+ 7.2	76	18	19	22	35	1.43	− 2.82	0.74	0.0	3	10	6	12	n.	Miss Thelma Wilkinson.
Saxon	Stokes	900	19	44.4	+ 7.0	74	18	18	22	37	1.83	− 2.27	0.60	0.0	6	7	8	13	ne.	R. P. McAnally.
Scotland Neck	Halifax	80	7	44.8	.....	79	18	20	22	37	3.24	.....	1.05	0.0	9	8	7	13	nw.	J. Y. Savage.
Selma	Johnston	225	21	46.0	+ 4.4	75	2	23	22	38[b]	1.88	− 2.78	0.53	0.0	7	.....	.....	.....	.....	Dr. R. J. Noble.
Settle	Iredell	700	15	45.0	+ 7.1	76	2†	15	22	41	1.68	− 2.53	0.82	2.3	4	11	7	10	nw.	C. H. Smith.
Sloan	Duplin	50	18	49.0[d]	+ 5.1	79	2	22	23	43[d]	0.52	− 4.19	0.36	0.0	3	11	8	9	n.	D. M. Sholar.
Snow Hill	Greene	80	6	46.7	.....	76	2	22	11	43[a]	1.72	.....	0.78	0.0	6	11	7	10	n.	L. J. H. Mewborn.
Southern Pines	Moore	519	21	48.6	+ 3.8	75	18	21	22	30	1.30	− 3.28	0.50	0.0	5	11	10	7	ne.	Mrs. P. H. Beck.
Southport	Brunswick	18	56	51.0	+ 2.2	73	27	25	23	26	0.71	− 2.96	0.59	0.0	2	10	11	7	sw.	Mrs. J. S. Taylor.
Statesville	Iredell	950	23	47.8	+ 8.4	78	19	17	22	43	1.99	− 2.61	0.61	T.	7	8	11	9	nw.	D. Matt Thompson.
Tarboro	Edgecombe	50	26	45.7	+ 3.4	76	2	23	22	40	2.15	− 2.08	0.89	0.0	9	10	7	11	ne.	E. V. Zoeller.
Weldon	Halifax	81	39	43.5	+ 2.4	75	2	22	22†	42	2.01	− 1.73	0.71	T.	9	.....	.....	.....	n.	H. S. S. Cooper.
Whiteville	Columbus	59	6	50.0	.....	79	2	25	23	37	0.75	.....	0.60	0.0	2	21	0	7	nw.	J. R. Williamson.
Willard	Pender	51	3	49.8	.....	79	2	20	23	45	0.65	.....	0.45	0.0	2	15	6	7	n	J. H. Jefferies.
Wilmington	New Hanover	52	40	51.4	+ 3.7	76	2	28	23	30	0.45	− 2.94	0.41	0.0	4	10	11	7	ne.	U. S. Weather Bureau.
South Carolina.																				
Aiken	Aiken	565	27	53.4	+ 4.5	81	15	23	22	31	1.16	− 3.05	0.65	0.0	3	16	1	11	w.	Dr. H. T. Hall.
Allendale	Barnwell	186	23	54.2	+ 6.2	81	27	23	22	47	1.45	− 2.70	1.25	0.0	2	7	8	13	.....	A. R. Hiers.
Anderson	Anderson	764	10	49.6	+ 6.2	76	15	20	22	38	2.93	− 2.67	0.75	T.	7	14	1	13	w.	H. H. Russell.
Batesburg	Lexington	656	23	49.8	+ 5.3	77	15	23	22	35	1.09	− 4.75	0.52	0.0	4	12	4	12	se.	E. J. Hite.
Beaufort	Beaufort	20	25	58.0	+ 6.3	77	15	32	22	30	1.10	− 2.56	1.05	0.0	2	14	10	4	sw.	Miss L. H. Rice.
Blackville	Barnwell	296	23	54.7	+ 8.0	85	26	25	21	40	1.34	− 3.31	1.05	0.0	6	9	7	12	sw.	Miss M. E. Lange.
Blairs	Fairfield	293	6	.....	.....	.....	.....	.....	.....	.....	2.30	.....	0.84	0.0	5	8	9	11	s.	John R. Ragsdale.
Bowman	Orangeburg	160	9	53.7	.....	80	15†	25	23	41	0.64	.....	0.46	0.0	2	19	3	6	w.	B. O. Evans

TABLE 1.—*Climatological data for February, 1911. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
South Carolina—Con.																				
Calhoun Falls	Abbeville	508	18	.....	.....	.....	.....	.....	.....	.....	3.20	− 2.14	1.20	0.0	4	9	5	14	sw.	M. L. Crisp.
Camden	Kershaw	222	45	.....	.....	.....	.....	.....	.....	.....	0.98	− 3.01	0.84	0.0	6	13	1	14	ne.	W. C. Brown.
Catawba	York	550	6	.....	.....	.....	.....	.....	.....	.....	2.34	.....	0.76	.....	7	5	7	16	n.	Jas. C. Faris.
Chappells	Newberry	402	6	.....	.....	.....	.....	.....	.....	.....	1.12	.....	0.96	0.0	2	11	0	15	sw.	W. R. Zimmerman.
Charleston	Charleston	48	41	55.3	+ 3.6	78	15	31	22	25	1.11	− 2.30	1.09	0.0	4	15	7	6	sw.	U. S. Weather Bureau.
Cheraw	Chesterfield	144	23	49.2	+ 4.6	77	18	22	22†	39	0.75	− 3.91	0.49	0.0	7	8	8	12	ne.	J. H. Powe.
Clemson College	Oconee	850	20	49.5	+ 7.5	72	2†	23	23†	36	2.97	− 2.73	1.05	0.0	6	15	7	6	w.	Prof. Jno. N. Hook.
Columbia	Richland	351	24	51.9	+ 4.1	77	15	25	22	31	0.94	− 3.65	0.74	0.0	6	11	9	8	sw.	U. S. Weather Bureau.
Conway	Horry	25	19	53.8	+ 7.5	80	2†	25	23	44	0.79	− 3.82	0.69	0.0	2	15	0	13	sw.	P. C. Quattlebaum.
Dillon	Dillon	100	7	51.2	+ 6.8	78	2†	21	23	46	0.63	− 4.41	0.30	0.0	6	.....	.....	.....	.....	A. E. Rowell.
Effingham	Florence	106	19	.....	.....	.....	.....	.....	.....	.....	0.95	− 4.35	0.60	0.0	3	17	0	11	w.	H. B. McCall.
Ferguson	Berkeley	51	3	.....	.....	.....	.....	.....	.....	.....	1.16	.....	1.15	0.0	2	13	4	11	n.	E. L. Ostrander.
Florence	Florence	136	23	54.2	+ 9.1	82	14	23	23	43	1.12	− 3.60	0.82	0.0	3	12	3	13	ne.	H. K. Gilbert.
Georgetown	Georgetown	12	18	54.3	+ 6.1	78	27	28	23	34	1.10	− 3.11	0.65	0.0	2	11	14	3	s.	A. P. Hazard.
Greenville	Greenville	989	19	50.6	+11.1	80	15	20	22	35	3.08	− 2.39	0.75	0.5	7	12	2	14	sw	S. A. Crittenden.
Greenwood	Greenwood	671	23	49.4	+ 7.6	77	15	22	22†	40	2.18	− 2.91	0.79	0.0	7	8	1	19	w.	M. M. Calhoun.
Jacksonboro	Colleton	13	3	54.1	.....	78	15†	29	22†	36	1.29	.....	1.24	0.0	2	15	6	7	sw.	W. E. Haskell, jr.
Kingstree	Williamsburg	54	23	50.8	+ 2.5	80	27	24	23†	50	0.75	− 3.61	0.70	0.0	2	9	5	14	ne.	A. O. Matthews.
Liberty	Pickens	900	17	50.2	+ 8.5	75	18	20	22†	37	4.92	− 0.38	2.84	2.0	7	11	8	9	w.	Jno. T. Boggs.
Little Mountain	Newberry	630	18	52.6	+ 7.1	77	17	30	24	36	1.24	− 3.87	0.65	0.0	6	20	4	4	w.	J. M. Sease, M. D.
Meriwether	Edgefield	500	2	52.0	.....	77	15	24	22†	41	1.47	.....	0.79	0.0	6	16	2	9	.....	Wm. S. Middleton.
Newberry	Newberry	502	18	50.6	+ 7.2	76	15	22	22	39	2.05	− 3.50	0.63	0.0	9	9	10	9	sw.	W. G. Peterson.
Pelzer	Anderson	873	7	.....	.....	.....	.....	.....	.....	.....	2.75	.....	0.70	0.0	8	8	2	18	w.	J. M. Ward.
Pinopolis	Berkeley	54	18	.....	.....	.....	.....	.....	.....	.....	1.36	− 2.12	1.20	0.0	3	.....	.....	.....	nw.	Miss E. P. Ravanel
St. George	Dorchester	109	23	54.0	+ 7.1	80	27	30	20†	36	1.60	− 2.60	1.60	0.0	1	25	0	3	.....	G. F. Lewis.
St. Matthews	Calhoun	269	23	52.2	+ 6.5	78	27	28	22	38	1.17	− 4.00	0.90	0.0	3	14	0	14	.....	J. S. Wannamaker.
Saluda	Saluda	536	9	52.4	.....	78	15	24	22†	29	1.71	.....	0.75	0.0	6	11	8	7	w.	Alvin Etheridge.
Santuc	Union	512	16	49.3	+ 7.1	74	15†	20	22	41	2.62	− 2.53	1.04	T.	9	5	14	9	nw.	E. W. Jeter.
Smith Mills	Williamsburg	62	16	.....	.....	.....	.....	.....	.....	.....	0.90	− 3.73	0.73	0.0	3	11	0	17	s.	W. G. Walker.
Society Hill	Darlington	192	20	49.4	+ 5.2	73	18	24	22	28	0.87	− 4.04	0.47	0.0	7	12	5	11	ne.	Maj. J. J. Lucas.
Spartanburg	Spartanburg	875	20	47.4	+ 4.9	75	15†	21	22	37	2.32	− 2.60	0.56	T.	8	7	1	20	.....	F. P. Robinson.
Summerville	Dorchester	75	14	55.3	+ 7.2	82	27	27	22	42	1.64	− 2.62	1.50	0.0	4	7	17	4	sw.	Miss E. H. Gadsden.
Trenton	Edgefield	620	18	52.8	+ 6.9	78	27	23	22†	34	1.41	− 4.56	1.15	0.0	3	11	13	4	s.	C. A. Long.
Walterboro	Colleton	69	7	56.9	.....	85	15†	27	22	44	1.52	.....	1.42	0.0	4	16	6	6	.....	J. A. Westerberg.
Winnsboro	Fairfield	545	22	49.9	+ 4.4	74	14†	22	22	30	0.58	− 4.10	0.20	0.0	5	18	9	1	nw.	John W. Seigler.
Winthrop College	York	690	12	49.4	+ 7.3	75	18	21	22	32	2.42	− 1.95	1.20	.....	8	13	7	8	sw.	E. R. Rivers.
Yemassee	Hampton	23	16	53.0	+ 4.6	79	27	27	22†	42	0.95	− 2.99	0.90	0.0	2	17	1	10	.....	J. G. Hutson.
Georgia.																				
Abbeville	Wilcox	.....	8	.....	.....	.....	.....	.....	.....	.....	1.36	.....	0.80	0.0	3	13	0	15	w.	W. H. Calhoun.
Adairsville	Bartow	772	19	49.6	+ 8.0	73	18†	20	22	38	3.16	− 2.29	0.85	T.	9	8	10	10	.....	Dr. J. P. Bowdoin.
Albany	Dougherty	230	25	57.6	+ 7.1	83	28	28	22†	42	2.24	− 3.21	0.84	0.0	5	10	6	12	nw.	Geo. C. Brosnan.
Allapaha	Berrien	293	22	57.4	+ 6.3	82	28	28	23	39	1.36	− 2.84	0.74	0.0	4	3	15	10	sw.	James T. Austin.
Americus	Sumter	362	28	54.4[c]	+ 2.2	76[a]	15	26[c]	22	35	1.69	− 3.34	0.92	0.0	3	11	2	15	nw.	F. P. Harrold.
Athens	Clarke	694	34	52.0	+ 7.9	77	15	22	22	39	3.32	− 2.07	0.99	0.0	9	7	2	19	w.	C. D. Cox.
Atlanta	Fulton	1,218	46	50.7	+ 5.6	72	18	20	22	31	3.40	− 1.70	0.98	T.	10	8	3	17	w.	U. S. Weather Bureau.
Augusta	Richmond	180	45	53.4	+ 3.3	78	27	27	22	37	1.24	− 3.18	1.05	0.0	6	10	8	10	nw.	Do.
Bainbridge	Decatur	110	19	60.6	+ 8.9	84	18†	24	23	47	1.04	− 3.96	0.42	0.0	4	13	2	13	sw.	Mrs. C. O. Wimberley.
Barnesville	Pike	875	2	53.3	.....	78	27	22	22	33	2.51	.....	0.97	0.0	6	10[a]	8[a]	9[a]	nw.	Prof. T. O. Galloway.
Blakely	Early	300	20	60.3	+ 8.5	85	18†	28	22†	47	2.47	− 3.84	0.94	0.0	5	9[a]	13[a]	5[a]	sw.	Ralph M. Hobbs.
Butler	Taylor	650	10	.....	.....	.....	.....	.....	.....	.....	2.74	− 2.64	1.05	0.0	6	11	0	17	sw.	Mrs. Mamie F. Wallace.
Camak	Warren	613	19	53.3	+ 9.6	83	28	23	22	38	1.24	− 4.01	1.20	0.0	2	9	0	19	.....	J. A. Chapman.
Canton	Cherokee	894	20	.....	.....	.....	.....	.....	.....	.....	3.64	− 1.80	1.40	T.	7	6	2	20	nw.	G. W. Evans.
Carlton	Madison	557	12	.....	.....	.....	.....	.....	.....	.....	3.61	− 2.48	1.10	0.0	7	10	0	18	w	M. C. Power.
Clayton	Rabun	2,100	17	48.3	+ 8.4	74	2	20	22	35	3.49	− 2.30	0.80	3.0	7	17	2	9	w.	A. J. Duncan.
Columbus	Muscogee	262	23	54.6	+ 6.2	79	27†	27	22	43	3.43	− 2.84	1.80	0.0	7	10	3	15	nw.	A. J. Land.
Covington	Newton	800	19	.....	.....	.....	.....	.....	.....	.....	4.03	− 1.85	1.15	0.0	7	12	7	9	s.	Mrs. Sarah E. Cruse.
Cuthbert	Randolph	446	11	55.8	+ 4.7	79	28	26	22†	38	1.80	.....	1.00	0.0	3	7	21	0	.....	Prof. W. McMichael.
Dahlonega	Lumpkin	1,519	21	48.7	+ 7.5	72	2	18	22	32	3.65	− 2.29	0.86	0.5	11	6	14	8	nw.	Prof. B. P. Gaillard.
Diamond	Gilmer	2,020	21	47.7	+ 6.9	73	15	13	22	34	4.66	− 2.99	0.84	1.5	9	10	4	14	.....	R. A. Kimzey.
Dublin	Laurens	452	17	.....	.....	.....	.....	.....	.....	.....	1.46	− 4.27	0.92	0.0	4	8	1	19	.....	Mrs. M. E. Martin.
Eastman	Dodge	361	19	57.2	+ 8.8	83	27	26	22	33	1.56	− 3.20	0.92	0.0	3	14	3	11	w.	Miss Annie Bohannon.
Eatonton	Putnam	.....	8	48.0	.....	71	19	21	22	34	1.38	.....	0.60	0.0	5	.....	.....	.....	.....	Prof. W. C. Wright.
Elberton	Elbert	710	20	52.6	+ 8.3	77	15†	20	22	36	3.73	− 2.03	1.15	0.0	7	13	10	5	w.	H. A. Roebuck.
Experiment	Spalding	946	11	53.2	+ 8.9	76	27	23	22	32	2.40	− 3.77	0.68	0.0	7	10	8	10	.....	Martin V. Calvin.
Fort Gaines	Clay	166	24	56.7	+ 8.9	82	27	26	23	46	2.07	− 4.28	1.07	0.0	3	11	0	17	se.	Mrs. Eva T. Graham.
Gainesville	Hall	1,254	34	47.8	+ 5.7	75	15	18	22†	37	2.41	− 3.61	0.80	0.0	8	13	0	15	w.	W. C. Walker.
Gillsville	....do	1,052	21	50.5	+ 6.0	74	15	21	22	32	2.72	− 2.82	0.70	0.0	8	15	8	5	w.	J. W. Casey.
Glennville	Tattnall	.....	6	55.9	.....	80	19	29	22	34	1.00	.....	0.76	0.0	4	22	5	1	w.	Wm. C. Barnard.
Gore	Chattooga	.....	12	49.8	+ 9.4	76	15	19	22	40	3.29	− 1.98	0.70	T.	8	9	9	10	s.	E. E. Duncan.
Greensboro	Greene	598	9	52.3	.....	79	27	23	22†	38	2.57	.....	0.99	0.0	6	11	14	3	w.	R. L. Caldwell.
Griffin	Spalding	975	22	51.3	+ 7.5	81	27	21	22	38	3.10	− 3.30	1.28	0.0	8	11	1	16	sw.	V. P. Enloe.
Harrison	Washington	245	12	53.8	+ 6.7	81	27	25	22†	43	1.73	− 4.06	1.25	0.0	5	21	2	5	w.	A. W. J. Wood.
Hawkinsville	Pulaski	235	16	55.0	+ 8.0	80	27†	25	23†	46	1.38	− 3.64	1.30	0.0	3	8	6	14	.....	R. H. Wood.
Helena	Telfair	260	4	57.6	.....	80	28	28	22	38	1.25	.....	0.72	0.0	6	2	18	8	sw.	James D. Smith.
Lafayette	Walker	871	4	48.8	.....	73	15†	19	22	38	5.60	.....	1.32	0.5	9	15	3	10	nw.	Ralph A. Snow.
Lisbon	Lincoln	.....	4	51.4	.....	78	15	22	23	42	2.57	.....	0.70	0.0	8	14	2	12	.....	B. J. Du Bose.
Lost Mountain	Cobb	.....	11	51.0	+ 8.8	73	19	20	22†	30	3.23	− 2.83	1.22	0.0	7	2	22	4	w.	A. N. Mayes.
Louisville	Jefferson	259	19	54.4	+ 5.5	78	27	25	22	37	1.79	− 3.15	1.27	0.0	4	12	11	5	.....	J. C. Little.
Lumber City	Telfair	.....	2	.....	.....	.....	.....	.....	.....	.....	1.15	.....	0.90	0.0	3	9	4	15	s.	Walter A. Hilton.
Lumpkin	Stewart	650	17	58.1	+ 8.8	85	18†	25	22	42	1.69	− 4.85	1.20	0.0	2	8	9	11	sw.	A. W. Latimer.
Macon	Bibb	370	33	54.0	+ 5.7	79	27	26	22	35	2.38	− 2.11	1.11	0.0	8	10	5	13	nw.	U. S. Weather Bureau.
Marshallville	Macon	500	19	55.0	+ 6.4	80	27	24	22	46	2.48	− 3.62	1.19	0.0	6	8	3	17	e.	E. C. Bryan.
Milledgeville	Baldwin	276	23	52.4	+ 4.2	77	27	26	22†	40	2.29	− 2.91	1.30	0.0	5	10	2	16	nw.	Prof. O. M. Cone.
Millen	Jenkins	158	24	55.2	+ 6.4	83	27	24	23	43	1.22	− 3.52	1.00	0.0	2	10	0	18	nw.	M. G. McComb.
Montezuma	Macon	292	6	.....	.....	.....	.....	.....	.....	.....	1.90	.....	0.62	0.0	5	11	1	16	sw.	R. E. Fokes.
Monticello	Jasper	800	16	52.8	+ 6.0	81	27	23	22	38	2.44	− 3.09	1.23	0.0	7	11	0	17	.....	Miss Maude Penn.
Morgan	Calhoun	337	18	.....	.....	76	28	.....	.....	.....	1.88	− 4.39	0.75	0.0	3	12	14	2	sw.	W. J. Ragan.
Newnan	Coweta	959	22	51.8	+ 9.1	78	16	21	22	38	5.32	− 1.28	1.18	0.0	8	9	4	15	sw.	Mrs. Ida J. Milner.
Norcross	Gwinnett	1,078	.....	.....	.....	.....	.....	.....	.....	.....	3.94	.....	0.98	0.0	7	10	3	15	.....	W. O. Medlock.
Point Peter	Oglethorpe	1,000	22	52.0	+ 8.7	74	15†	22	22	33	4.30	− 1.52	1.52	0.0	7	6	15	7	w.	C. M. Witcher.
Poulan	Worth	365	20	56.4	+ 5.8	82	28	25	25	45	1.61	− 3.69	0.85	0.0	4	13	8	7	.....	Dr. J. F. Wilson.
Putnam	Marion	.....	11	55.8	+ 7.9	80	27†	23	22	40	1.50	− 5.00	1.10	0.0	2	9	5	14	s.	Mrs. M. J. Collum.
Quitman	Brooks	173	25	59.6	+ 6.2	83	28	28	23	43	0.81	− 3.62	0.34	0.0	3	13	0	15	ne.	A. B. Jones.
Ramsey	Murray	1,363	18	51.4	+ 7.6	73	18	21	22	38	4.58	− 0.64	0.87	T.	12	9	7	12	s.	D. E. Humphreys.
Resaca	Gordon	657	17	.....	.....	.....	.....	.....	.....	.....	3.73	− 1.82	0.70	0.0	10	14	0	14	n.	D. A. Norton.
Rome	Floyd	576	55	49.1	+ 3.2	77	18	20	22†	42	3.72	− 0.92	0.70	T.	11	8	1	19	w.	W. M. Towers.
St. George	Charlton	.....	4	57.8	.....	81	28	27	25	43	0.08	.....	0.08	0.0	1	13	13	2	sw.	A. N. Lund.

TABLE 1.—*Climatological data for February, 1911. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.					Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Georgia—Continued.																				
St. Marys	Camden	20	19	59.0	+ 4.3	82	14	28	23	38	0.20	− 3.18	0.11	0.0	4	8	14	6	sw.	David C. Sterling.
Savannah	Chatham	65	61	56.7	+ 2.9	79	15	31	22	32	0.70	− 2.29	0.59	0.0	3	13	8	7	sw.	U. S. Weather Bureau.
Statesboro	Bulloch	253	11	56.6	+ 6.5	80	15†	28	22	39	1.04	− 3.15	0.85	0.0	4	13	14	1	.....	W. C. Cromley.
Talbotton	Talbot	750	18	54.1	+ 7.2	83	15†	20	22	41	2.59	− 3.64	0.95	0.0	9	12	2	14	nw.	Dr. E. L. Bardwell.
Tallapoosa	Haralson	1,150	12	50.4	+ 7.7	76	15	19	22	39	3.20	− 1.68	1.08	0.0	7	9	5	14	nw.	Elmer C. Bishop.
Thomasville	Thomas	273	29	58.9	+ 5.0	82	28	28	23	40	0.51	− 4.11	0.24	0.0	5	15	9	4	s.	U. S. Weather Bureau.
Tifton	Tift	370	....	56.4	.....	79	28	28	22†	39	1.26	.....	0.71	0.0	5	.....	.....	.....	.....	K. C. Moore.
Toccoa	Stephens	1,050	26	49.8	+ 7.2	76	2	20	22	30	2.61	− 2.93	0.60	0.0	6	14	0	14	w.	Mrs. Alice N. Starke.
Valdosta	Lowndes	210	6	60.3	.....	87	2†	25	23	48	0.70	.....	0.40	0.0	2	10	2	16	n.	Miss Annie Twitty.
Valona	McIntosh	10	14	54.1	+ 2.5	80	14	28	26	45	0.60	− 2.74	0.40	0.0	2	23	2	3	sw.	J. M. Atwood.
Washington	Wilkes	630	33	51.3	+ 8.2	77	27	23	22	38	3.45	− 2.26	1.64	0.0	8	8	3	17	ne.	Miss Ella B. Smith.
Waycross	Ware	131	22	58.8	+ 7.3	82	28	30	22	39	0.90	− 2.66	0.52	0.0	4	14	3	11	s.	Thomas Sasser.
Waynesboro	Burke	86	20	55.6	+ 8.2	83	15	24	23	43	1.39	− 3.00	1.35	0.0	3	13	2	13	nw.	Mrs. H. W. Blount.
West Point	Troup	620	22	52.0	+ 6.4	79	27	23	22	44	2.88	− 4.51	1.17	0.0	6	8	0	20	n.	E. N. Dunn.
Woodbury	Meriwether	641	10	50.8	+ 7.2	80	27	23	22	38	.....	.....	.....	0.0	....	8[a]	2[a]	17[a]	.....	E. T. Riggins.
Florida.																				
Apalachicola §	Franklin	24	7	61.6	.....	78	2	32	22†	29	0.03	.....	0.03	0.0	1	18	8	2	se.	G. H. Whiteside.
Arcadia	De Soto	61	10	64.1	+ 0.6	88	13	28	25	43	0.10	− 2.39	0.04	0.0	6	10	15	3	e.	C. S. Bushnell.
Archer	Alachua	92	26	65.0	+ 6.7	84	14	30	23†	37	0.55	− 2.99	0.55	0.0	1	.....	.....	.....	.....	R. B. Hodgson.
Avon Park	De Soto	150	13	64.8	+ 1.8	86	7†	31	24†	36	T.	− 2.82	T.	0.0	0	22	4	2	sw.	O. R. Thacher.
Bartow	Polk	115	23	64.0	+ 0.7	86	15†	27	24†	40	0.00	− 2.78	0.00	0.0	0	13	11	4	ne.	Wm. Hood.
Bonifay	Holmes	111	9	60.4	.....	83	15	27	25	38	0.70	.....	0.25	0.0	4	5	4	19	s.	Wm. Rush.
Bradentown	Manatee	10	27	62.9	+ 0.6	80	14†	34	25	34	T.	− 2.79	T.	0.0	0	.....	.....	.....	.....	H. H. Ten Broeck.
Brooksville	Hernando	126	18	65.0	+ 5.4	86	7	32	23†	39	0.10	− 3.33	0.10	0.0	1	26	1	1	nw.	C. C. Peck.
Carrabelle	Franklin	10	12	58.9	+ 5.0	79	1†	29	22	37	0.36	− 3.98	0.22	0.0	2	.....	.....	.....	.....	J. J. Blomquist.
Cedar Keys	Levy	10	22	60.7	+ 1.5	79	16	35	23	34	0.00	− 2.67	0.00	0.0	0	24	0	4	nw.	J. B. Lutterloh.
Clermont	Lake	105	18	66.6	+ 4.7	86	14	35	24†	37	0.00	− 3.42	0.00	0.0	0	15	13	0	n.	S. S. Fesler.
De Funiak Springs	Walton	193	13	61.2	+ 8.6	85	15	28	23	35	0.97	− 5.96	0.40	0.0	5	.....	.....	.....	s.	R. W. Storrs.
De Land	Volusia	27	14	61.6	+ 2.3	84	14	25	24	43	0.02	.....	0.02	0.0	1	22	6	0	ne.	O. B. Webster.
Eustis	Lake	56	20	65.8	+ 5.0	86	14†	35	24	37	T.	− 3.14	T.	0.0	0	.....	.....	.....	sw.	C. T. Smith.
Federal Point	Putnam	5	19	63.2	+ 5.7	85	8	35	24	34	0.09	− 3.36	0.07	0.0	3	14	13	1	e.	E. S. Hubbard.
Fenholloway	Taylor	75	4	59.0	.....	83	28	24	24†	44	0.00	.....	0.00	0.0	0	.....	.....	.....	.....	Miss E. Wigglesworth.
Fernandina	Nassau	10	18	60.4	+ 5.6	80	6	34	22	29	0.30	− 3.92	0.16	0.0	4	23	4	1	se.	W. B. C. Duryee.
Fort Meade	Polk	125	22	64.2	+ 2.9	88	14†	25	25	48	T.	− 2.59	T.	0.0	0	20	7	1	nw.	G. L. Brodrick.
Fort Myers	Lee	12	39	65.8	+ 0.9	84	16	39	24	33	T.	− 2.25	T.	0.0	0	27	1	0	se.	Miss M. M. Gardner.
Gainesville	Alachua	176	17	62.5	+ 6.2	84	2	33	22†	40	0.13	− 2.93	0.13	0.0	1	20	2	6	.....	J. P. H. Bell.
Grasmere §	Orange	175	13	63.8	+ 3.3	84	15	31	25	38	T.	.....	T.	0.0	0	25	2	1	.....	J. B. Escott.
Hilliard	Nassau	69	2	59.5	.....	82	5	29	23	45	0.30	.....	0.30	0.0	1	23	2	3	.....	The Hilliard Co.
Homestead	Dade	5	1	66.4	.....	86	10	37	25	37	0.00	.....	0.00	0.0	0	17	10	1	e.	W. J. Krome.
Hypoluxo	Palm Beach	4	15	68.3	+ 1.9	88	20	43	24	30	0.00	− 3.60	0.00	0.0	0	19	8	1	ne.	G. A. Angevine.
Inverness	Citrus	43	11	63.0	+ 5.6	81	14†	27	24	38	0.00	− 3.44	0.00	0.0	0	6	12	10	sw.	W. H. Miller.
Jacksonville	Duval	101	40	61.0	+ 3.1	81	28	34	23	29	0.13	− 3.30	0.13	0.0	1	12	12	4	sw.	U. S. Weather Bureau.
Jasper	Hamilton	152	10	60.0	+ 6.2	83	8	26	24†	43	0.34	− 3.80	0.19	0.0	3	9	14	5	sw.	Mrs. W. C. Caldwell.
Johnstown	Bradford	125	11	61.2	+ 4.7	83	4†	26	23	46	0.29	− 3.67	0.16	0.0	2	24	2	2	.....	A. M. C. Brasch.
Jupiter	Palm Beach	34	23	68.7	+ 2.4	84	12	40	24	27	0.09	− 2.96	0.07	0.0	2	11	14	3	e.	U. S. Weather Bureau.
Key West	Monroe	14	40	71.5	+ 0.7	82	20	56	23	19	0.01	− 1.63	0.01	0.0	1	17	9	2	ne.	Do.
Kissimmee	Osceola	65	18	65.8	+ 4.7	84	20†	34	24†	39	0.00	− 3.62	0.00	0.0	0	9	18	1	ne.	J. A. Simpson.
Lake City	Columbia	210	26	62.6	+ 5.2	82	6†	28	24	42	0.35	− 3.73	0.20	0.0	2	11	8	9	sw.	W. B. Knight.
Live Oak	Suwanee	109	11	61.2	.....	83	28	26	24	48	0.15	− 4.62	0.10	0.0	2	25	0	3	sw.	J. D. Henry.
Macclenny	Baker	125	14	59.3	+ 3.7	83	28	25	25	49	0.15	− 4.02	0.15	0.0	1	.....	.....	.....	.....	Griffing Bros. Co.
Madison	Madison	200	11	59.9	+ 4.1	83	28	28	23†	41	0.25	− 3.86	0.09	0.0	5	8	3	17	nw.	Judge E. J. Vann.
Malabar	Brevard	24	17	64.6	+ 1.4	89	20	32	24	37	0.06	− 2.24	0.06	0.0	1	26	2	0	se.	J. F. Farley.
Marianna	Jackson	80	8	59.2	.....	82	15†	28	25	40	0.48	.....	0.30	0.0	3	10	16	2	s.	W. J. Watson.
Merritts Island	Brevard	20	28	64.8	+ 0.8	81	12	37	23	27	0.08	− 2.49	0.08	0.0	1	9	19	0	e.	F. Ulrich.
Miami	Dade	5	28	70.2	+ 2.1	85	20	43	25	30	T.	− 2.33	T.	0.0	0	18	7	3	se.	E. V. Blackman.
Middleburg	Clay	10	10	60.0[e]	.....	86	6	27	23	45	0.10	− 3.90	0.10	0.0	1	.....	.....	.....	.....	G. A. Chalker.
Molino	Escambia	49	9	61.3	.....	84	8†	23	23	40	1.05	.....	1.05	0.0	1	17	5	6	s.	W. H. Trimmer.
Monticello	Jefferson	207	7	60.2	.....	83	5†	25	23	43	0.36	.....	0.26	0.0	2	.....	.....	.....	s.	E. C. Potter.
Newport	Wakulla	.....	10	59.3	+ 4.8	84	28	27	22†	44	0.27	− 3.54	0.27	0.0	1	16	8	4	sw.	J. M. Ladd.
New Smyrna	Volusia	9	26	64.7	+ 5.9	87[a]	14	31	23	36	0.04	− 2.97	0.04	0.0	1	.....	.....	.....	.....	F. Nordman.
Orange City	....do	39	17	62.6	+ 2.2	86	8	25	23†	38	T.	− 2.70	T.	0.0	0	24	3	1	sw.	J. D. Graham.
Orlando	Orange	111	18	64.7	+ 3.5	85	14†	29	24	41	0.06	− 2.63	0.06	0.0	1	13	12	3	e.	James Thomson.
Pensacola	Escambia	149	31	60.6	+ 5.1	77	2	30	23	27	0.38	− 4.11	0.24	0.0	4	8	14	6	s.	U. S. Weather Bureau.
Plant City	Hillsboro	121	17	65.8	+ 4.4	88	9	30	25	42	0.00	− 3.25	0.00	0.0	0	21	7	0	s.	E. B. Trask.
Rockledge	Brevard	28	3	64.0	.....	82	20	33	23	33	0.00	.....	0.00	0.0	0	23	5	0	se.	Rev. J. H. White.
Rockwell	Marion	10	9	.....	.....	.....	.....	28[l]	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dunellon Phos. Co.
St. Andrew	Washington	14	14	60.2	+ 6.4	82	28	29	25	36	0.62	− 3.93	0.34	0.0	4	26	2	0	s.	W. A. Emmons.
St. Augustine	St. Johns	10	59	62.8	+ 4.2	84	8†	31	25	40	0.00	− 2.96	0.00	0.0	0	23	2	3	ne.	E. F. Joyce.
St. Leo	Pasco	140	14	64.1	+ 3.2	83	14†	32	24	36	0.01	− 3.61	0.01	0.0	1	20	8	0	e.	G. Schneider.
Satsuma Heights §	Putnam	98	3	61.0	.....	81	8†	32	23†	37	0.14	.....	0.11	0.0	2	13	15	0	.....	The Satsuma Co.
Switzerland	St. Johns	10	18	61.2	+ 5.2	82	14	33	24	36	1.13	− 2.17	1.13	0.0	1	.....	.....	.....	.....	W. C. Steele.
Tallahassee	Leon	192	24	60.0	+ 5.5	80	28	30	23	30	0.45	− 4.34	0.25	0.0	3	11	2	15	e.	W. H. Markham.
Tampa	Hillsboro	79	21	64.6	+ 3.7	82	15	37	23	31	0.05	− 3.22	0.04	0.0	2	15	12	1	nw.	U. S. Weather Bureau.
Tarpon Springs	....do	20	26	64.0	+ 2.8	83	16	32	24	39	0.06	− 3.02	0.06	0.0	1	23	4	1	e.	A. P. Albaugh.
Titusville	Brevard	6	15	64.3[d]	+ 2.6	85[i]	14†	34	23†	....	0.09	− 3.39	0.05	0.0	3	2	16	10	se.	F. M. Taylor.
Wausau	Washington	250	11	62.2	+ 9.8	85	14	24	23	42	0.60	− 4.57	0.60	0.0	1	9	11	8	s.	Curtis Jones.
Alabama.																				
Alaga	Houston	105	6	.....	.....	.....	.....	.....	.....	.....	0.79	.....	0.26	0.0	4	.....	.....	.....	n.	James L. Willis.
Anniston	Calhoun	728	20	52.6	+ 6.8	76	15	22	22	39	4.39	− 0.26	1.24	0.0	12	4	7	17	n.	U. S. Weather Bureau.
Ashville	St. Clair	685	18	52.3	+ 9.5	75	18	21	22	35	3.67	− 1.66	0.85	0.0	10	10	8	10	s.	George R. Cather.
Auburn	Lee	732	29	55.6	+ 6.5	80	15†	24	22	37	3.34	− 1.46	1.12	0.0	8	4	9	15	sw.	Dr. James T. Anderson.
Benton	Lowndes	149	10	.....	.....	.....	.....	.....	.....	.....	2.77	− 4.08	1.21	0.0	5	.....	.....	.....	se.	S. T. Pruitt.
Bermuda	Conecuh	.....	24	56.7[b]	+ 5.5	80	28	26	22	33[d]	2.27	− 3.85	0.79	0.0	7	11	8	9	n.	M. J. Morris.
Birmingham	Jefferson	701	23	53.1	+ 4.8	76	18	21	22	26	3.75	− 1.00	0.72	T.	10	6	7	15	s.	U. S. Weather Bureau.
Calera	Shelby	500	10	.....	.....	.....	.....	.....	.....	.....	4.00	− 1.81	1.60	0.0	8	.....	.....	.....	e.	L. G. Privett.
Camp Hill	Tallapoosa	738	10	55.0[f]	+ 9.4	90[m]	28	22	22	41[m]	1.81	− 4.27	1.08	0.0	5	13	5	10	n.	Dr. Lyman Ward.
Cedar Bluff	Cherokee	594	7	.....	.....	.....	.....	.....	.....	.....	2.97	.....	1.17	0.0	5	11	17	0	.....	Joe L. Daniel.
Citronelle	Mobile	331	23	60.9	+ 7.2	83	15	27	22	31	1.72	− 4.14	0.76	0.0	11	21	1	6	s.	George A. Maloney.
Clanton	Chilton	590	18	55.2	+ 9.0	78	27	22	22	37	3.10	− 3.38	0.82	0.0	7	4	0	24	s.	Wallace C. Edler.
Cochrane	Pickens	100	1	.....	.....	.....	.....	.....	.....	.....	2.17	.....	1.36	0.0	5	.....	.....	.....	n.	T. H. G. Cook.
Cordova	Walker	334	20	53.4	+ 9.1	79	1†	21	22†	38	4.31	− 1.15	1.21	0.0	7	11	9	8	s.	Scott Maxwell.
Cullman	Cullman	802	3	49.9	.....	79	15	18	22	43	4.87	.....	0.89	T.	12	7	10	11	nw.	Eugene A. Grayot.
Dadeville	Tallapoosa	760	6	.....	.....	.....	.....	.....	.....	.....	3.42	.....	1.22	0.0	5	.....	.....	.....	e.	Dr. W. B. Fulton.
Daphne	Baldwin	.....	20	61.2	+ 8.1	81	16	29	22	33	2.66	− 3.53	0.62	0.0	5	15	5	8	se.	John H. Young.
Demopolis	Marengo	.....	19	.....	.....	.....	.....	.....	.....	.....	1.69	− 4.35	0.84	0.0	6	8	6	14	s.	George E. Pegram.
Eufaula	Barbour	200	27	54.2	+ 5.1	76	28	25	22	36	2.00	− 4.26	1.00	0.0	6	10	2	16	sw.	Dr. J. B. Whitlock.
Evergreen	Conecuh	285	27	58.4	+ 8.1	84	28	25	23	40	0.64	− 5.40	0.30	0.0	3	7	0	21	s.	Robt. L. Whitcomb.

TABLE 1.—*Climatological data for February, 1911. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Alabama—Continued.																			
Flomaton	Escambia	91	19	56.4	+ 4.6	80	6	23	23	30	2.03	− 5.25	1.82	0.0	5	11	11	6	s.	T. J. Farris.
Fort Deposit	Lowndes	520	27	55.4	+ 7.4	79	7	25	22†	44	3.15	− 2.75	1.35	0.0	5	8	9	11	s.	J. F. Hattemer.
Gadsden	Etowah	621	27	52.1	+ 8.9	78	18	22	22	39	3.29	− 2.52	0.72	0.0	8	6	0	22	.....	D. P. Goodhue.
Greensboro	Hale	220	32	56.6	+ 8.3	77	1†	25	22	31	3.79	− 1.61	1.42	0.0	7	10	3	15	s.	W. E. W. Yerby.
Greenville	Butler	444	10	.....	.....	.....	.....	.....	.....	.....	1.79	− 4.06	0.72	0.0	5	.....	.....	.....	.....	E. M. Lewis.
Hamilton	Marion	.....	15	53.9[b]	+11.4	79	14	17	22	38	5.63	+ 0.35	1.61	0.0	10	8	8	12	n.	Prof. H. O. Sargent.
Highland Home	Crenshaw	.....	19	58.1	+ 8.6	81	1†	25	22	36	2.16	− 3.65	1.12	0.0	6	13	3	12	nw.	Prof. Samuel Jordan.
Livingston	Sumter	160	27	55.0	+ 7.2	77	1†	25	22†	49	2.19	− 3.10	0.98	0.0	4	7	0	21	e.	Robt. L. King.
Lock No. 4	Talladega	510	14	53.0	+ 9.5	79	15	22	22	34	4.30	− 1.49	0.93	0.0	11	14	0	14	nw.	U. S. Engineers.
Maple Grove	Cherokee	.....	18	50.2	+ 8.6	77	19	22	22	36	3.81	− 1.63	0.80	0.0	8	6	9	13	sw.	Mrs. A. L. Awbrey.
Mentone	De Kalb	1,595	4	.....	.....	.....	.....	.....	.....	.....	3.63	.....	1.04	T.	5	.....	.....	.....	w.	E. Mason.
Milstead	Macon	.....	8	.....	.....	.....	.....	.....	.....	.....	3.12	.....	1.60	0.0	6	.....	.....	.....	e.	Evie Oswalt.
Mobile	Mobile	84	39	60.7	+ 7.5	78	2	31	22	25	2.09	− 3.27	1.17	0.0	7	12	10	6	se.	U. S. Weather Bureau.
Montgomery	Montgomery	240	39	56.6	+ 5.3	78	7	26	22	29	3.07	− 2.45	1.62	0.0	7	10	6	12	s.	Do.
Newbern	Hale	.....	18	56.8	+10.0	81	1	25	22†	37	3.03	− 2.46	0.88	0.0	7	7	13	8	s.	Dr. J. Huggins.
Oneonta	Blount	857	17	50.6	+ 7.9	75	15	18	22	35	4.78	− 1.05	0.90	T.	13	9	2	17	n.	Aquilla J. Ketchum.
Opelika	Lee	817	32	54.3	+ 6.9	78	15	23	22	33	2.92	− 3.13	1.22	0.0	6	9	3	16	e.	A. H. Read, jr.
Ozark	Dale	400	9	.....	.....	79	28	.....	.....	.....	1.80	.....	0.80	0.0	3	22	6	0	s.	Miss Lucy Sellers.
Prattville	Autauga	281	11	56.4	+ 9.1	79	1†	25	22†	39	3.94	.....	1.20	0.0	4	12	3	13	s.	Jos. B. Bell.
Pushmataha	Choctaw	.....	20	57.1	+ 8.5	80	18†	25	22	35	2.13	− 4.21	0.72	0.0	6	5	18	5	sw.	W. N. Horn.
Selma	Dallas	147	31	56.1	+ 6.8	80	14	26	22†	49	2.10	− 4.08	0.78	0.0	7	5	7	16	s.	Charles F. Brislin.
Spring Hill	Mobile	312	7	59.8	.....	78	6†	30	22†	30	1.97	.....	0.85	0.0	6	9	16	3	s.	Spring Hill College.
Tallassee	Elmore	.....	20	.....	.....	.....	.....	.....	.....	.....	3.64	− 2.84	1.41	0.0	6	.....	.....	.....	nw.	P. A. Noble.
Thomasville	Clarke	385	20	56.2	+ 8.2	81	14†	22	22	45	2.94	− 3.05	1.40	0.0	6	9	3	16	s.	J. G. Forster.
Troy	Pike	581	3	58.1	.....	82	27	26	22	35	2.40	.....	1.07	0.0	9	9	17	2	s.	Frank L. Zimmerman.
Tuscaloosa	Tuscaloosa	230	30	52.6	+ 7.8	78	3	23	22†	51	3.92	− 1.13	1.54	0.0	11	10	1	17	s.	W. S. Wyman, jr.
Tuskegee	Macon	.....	11	57.0	+ 8.6	81	28	25	22	39	2.91	− 3.75	1.00	0.0	4	10	10	8	n.	Prof. Geo. W. Carver.
Union Springs	Bullock	216	24	55.9	+ 7.5	76	1†	24	22	33	2.45	− 4.71	1.28	0.0	5	7	18	3	s.	P. L. Cowan.
Uniontown	Perry	273	25	57.3	+ 8.9	79	18	25	22	37	1.91	− 3.70	0.78	0.0	7	12	11	5	nw.	F. D. Stevens.
Valley Head	De Kalb	1,031	26	49.4	+ 7.7	78	14	21	23	43	4.44	− 1.11	1.12	T.	8	9	14	5	s.	M. T. Floyd, M. D.
Wetumpka	Elmore	205	19	57.8	+10.1	82	27	26	22	37	5.19	− 0.63	1.81	0.0	5	9	0	19	n.	U. S. Engineers.
Mississippi.																				
Aberdeen	Monroe	210	23	52.4	+10.7	81	1	22	22	44	6.00	+ 0.73	1.88	0.0	9	7	1	20	s.	L. D. Godfrey, jr.
Agricultural College	Oktibbeha	424	21	55.0	+ 8.9	82	15	20	22	34	3.75	− 1.77	0.90	0.0	8	3	15	10	sw.	J. R. Ricks.
Bay St. Louis	Hancock	28	18	62.3	+ 9.5	81	2†	29	23	29	1.28	− 4.02	0.55	0.0	7	10	7	11	e.	Brother Stanislaus.
Biloxi	Harrison	24	20	62.6	+ 9.8	81	6	31	22†	26	2.64	− 3.25	1.77	0.0	8	11	9	8	se.	Miss M. Josie Pope.
Booneville	Prentiss	504	17	51.1	+ 8.2	75	1†	20	22	27	6.61	+ 1.33	1.98	0.0	11	8	12	8	s.	Dr. D. T. Price.
Brookhaven	Lincoln	500	23	58.6	+ 7.8	82	.....	26	23	46[b]	1.64	− 4.30	0.85	0.0	5	5[a]	13[a]	9[a]	e.	W. J. Bee.
Columbia	Marion	110	7	.....	.....	.....	.....	.....	.....	.....	1.37	.....	0.62	0.0	6	6	2	20	sw.	N. R. Drummond.
Columbus	Lowndes	191	23	53.2	+ 9.7	82	1	23	22†	48	4.73	− 1.05	1.95	0.0	7	8	0	20	se.	J. B. Love.
Crystal Springs	Copiah	168	19	57.6	+ 9.6	82	15	26	22	42	3.22	− 2.34	1.00	0.0	8	13	9	6	.....	D. H. Miller.
Edinburg	Leake	.....	3	55.6	.....	81	15	21	23	40	3.49	.....	1.27	0.0	8	9	5	14	w.	J. Y. Blocker.
Enterprise	Clarke	248	6	.....	.....	.....	.....	.....	.....	.....	2.14	.....	0.54	0.0	8	4	1	23	s.	J. B. Thompson.
Fulton	Itawamba	.....	2	.....	.....	.....	.....	.....	.....	.....	6.49	.....	0.80	0.0	13	9	0	19	n.	A. L. Summers.
Hattiesburg	Forest	189	18	61.4	+ 9.6	86	15	24	23	38	1.16	− 4.72	0.34	0.0	6	7	2	19	n.	T. C. Spence.
Hazlehurst	Copiah	460	21	58.1	+10.3	81	15	24	23	43	2.44	− 4.26	0.90	0.0	9	4	0	24	e.	J. D. Granberry.
Hickory	Newton	326	1	.....	.....	.....	.....	.....	.....	.....	2.50	.....	1.00	0.0	5	15	5	8	w.	A. C. Hailey.
Jackson	Hinds	280	24	59.4	+11.2	86	15	25	23	35	2.95	− 2.58	0.70	0.0	9	6	11	11	se.	A. S. Nall.
Lake	Scott	446	23	56.6	+ 9.9	78	15†	23	22	39	2.50	− 3.83	1.10	0.0	6	7	1	20	se.	Mrs. Eddie McNeel.
Lake Como	Jasper	.....	8	.....	.....	.....	.....	.....	.....	.....	2.20	.....	0.52	0.0	6	10	8	10	s.	C. Thigpen.
Laurel	Jones	241	7	59.8	.....	83	15	25	23	35	1.55	.....	0.48	0.0	8	10	10	8	sw.	Thomas W. Flynt.
Leakesville	Greene	.....	17	61.2	+10.5	85	15	23	23	40	2.36	− 4.00	1.37	0.0	6	10	12	6	.....	Dr. Sam Pool.
Louisville	Winston	561	22	56.0	+ 8.9	81	1	22	22	38	4.18	− 1.33	1.25	0.0	9	.....	.....	.....	.....	B. T. Webster.
McNeill	Pearl River	230	8	61.0	.....	80	2†	25	23	32	2.32	.....	0.63	0.0	6	9	15	4	se.	Prof. E. B. Ferris.
Macon	Noxubee	185	23	55.0	+11.3	82	1	23	22	39[b]	3.11	− 2.35	1.77	0.0	7	6	2	20	se.	Finis E. Carleton.
Magnolia	Pike	415	15	61.6	+11.3	83	14	26	23	35	0.79	− 5.50	0.55	0.0	4	4	16	8	s.	Miss Ruby V. Roberts.
Meridian	Lauderdale	375	21	56.8	+ 7.7	79	15	25	22	33	1.88	− 3.02	0.57	0.0	8	6	6	16	sw.	U. S. Weather Bureau.
Merrill	Greene	76	6	.....	.....	.....	.....	.....	.....	.....	0.56	.....	0.28	0.0	3	10	4	14	n.	L. C. Helms.
Monticello	Lawrence	209	4	60.5	.....	84	15	20	23	40	1.20	.....	0.82	0.0	5	6	17	5	se.	Dr. G. A. Teunisson.
Okolona	Chickasaw	311	23	51.1	+ 7.6	79	1	21	22	37	5.59	− 0.74	1.87	0.0	11	4	5	19	ne.	D. H. Snell.
Pascagoula	Jackson	15	2	61.8	.....	77	6	30	22†	29	0.63	.....	0.31	0.0	5	10	11	7	s.	Frederick Hess.
Pearlington	Hancock	10	23	62.2	+ 7.8	82	19	24	23	35	0.56	− 4.93	0.21	0.0	4	5	15	8	ne.	Miss Annette Koch.
Porterville	Kemper	.....	6	57.3	.....	80	1	22	22	41	3.42	.....	1.50	0.0	8	5	12	11	se.	I. S. Rea.
Shubuta	Clarke	197	6	.....	.....	.....	.....	.....	.....	.....	2.36	.....	0.58	0.0	9	5	6	17	s.	George A. Floyd.
Waynesboro	Wayne	191	24	57.8	+ 7.8	82	15	23	23	51	2.26	− 3.14	0.75	0.0	6	7	0	21	s.	R. S. Burke.
Woodland	Chickasaw	.....	2	.....	.....	.....	.....	.....	.....	.....	4.80	.....	1.29	0.0	9	.....	.....	.....	.....	Tallahatchie Dng. Com.

TABLE 2.—*Daily precipitation for February, 1911. District No. 2, South Atlantic and east Gulf States.*

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Virginia.																														
Arvonia	James	.06		T.	.09		.12	.02	.54	.46	T.				T.	T.	.05		.06	.11	.50									2.01
Ashland	do						.23	.10	.49	.60			.14							T.	.70									2.26
Buchanan	do	.12			.14		.05	.04	.32	.50	.38									.28	.18									2.01
Callaville	Chowan						.29	.60	.41	.20	.12	.40	.10							.72	.12									2.96
Cape Henry	Coast				.07		.35		.43	.60			.09						.05		.25									1.84
Catawba	Roanoke	.17			.04		.10		.61	.40			T.							.40	.40									2.12
Charlottesville	James	.16		T.			.14			.44					T.		.02		.08	.06	.41									1.31
Clarksville	Roanoke				.15			.27	.04	.76	.42		.20								.20									2.04
Columbia	James			.12			.10		.40	.49							.02		.03	.47										1.63
Danville	Roanoke	T.			.11	T.	T.	.14	.05	.71	.36		.14					T.	T.	T.	T.	.16	T.								1.67
Diamond Springs	Coast				.10		.10	.46	.45	.60	.13									T.	.39									2.23
Hampton	do	.02	T.		.13		.26	.20	.51	.58	.16		.16						T.	.12	.41									2.55
Hot Springs	James	.16			.10		.08		.15	.16	.06									.11	.40									1.22
Ivor	Chowan	.06			.15		.27	.32	.44	.70	.05		.20		.02	.05				.21	.30									2.77
Lassiter	James						.10		.75	.50			.65							.20	.45									2.65
Lexington	do			T.	.01		.04		.44	.33					T.	.01	T.		.02	.47										1.32
Lynchburg	do			.01	.05		.05		.39	.31			.01						.05	.18	.18									1.23
New Castle	do	1.11		.46	.10	.17		1.09	.25										.04	1.14										4.36
Newport News	Coast	.04			.24		.44	.06	.51	.71	.02		.14		T.				.03	.10	.42									2.71
Norfolk	do			T.	.09		.41		.54	.74			.10		T.	T.			.04	.01	.25									2.18
Petersburg	James	.10					.30		*	*		*	1.15			T.	T.		T.	.30	.48									2.33
Randolph	Roanoke	.10			.28			.32	.08	.72	.62		.06							.16	.28									2.62
Richmond	James		T.	.08	.05		.37		.49	.52		.01	.05		T.	T.			.05	.03	.55									2.20
Rocky Mount	Roanoke				.07		.10		.57	.41		T.	.03				.07			.37	.31									1.93
Saxe	do				.38		.27		.70	.56										.31	.30									2.52
Spottsville (near)	Chowan			.04	.19		.43	.12	.34	.85			.08						.30	.18	.53									3.06
Williamsburg	James	T.		T.	.15		.22	.10	.35	.70			.15							.25	.70									2.62
North Carolina.																														
Beaufort	Bogue Sound	.03			.05		.14	.12	.04		.10		.45	.02																0.95
Belhaven	Pungo							.25		.43			.47																	1.15
Brewers	Pedee	.04		T.	.30		.12		.74	.56			.17		T.		.03			.02	.20						T.			2.18
Caroleen	Santee						.35		.45	.63			.23								.45									2.11
Chalybeate Springs	Cape Fear	.05			.03		.04	.06	.15	1.04		.36									.16							T.		1.89
Chapel Hill	do	.03			.02		.28		.86	.66			.33				.04				.34									2.56
Charlotte	Santee			T.	.11		.13	.01	.19	.83		.20	.07		.02		T.			.02	.35									1.93
Chimney Rock	do				.38		.20		.70	.60		.07	.10																	2.05
Durham (near)	Neuse	.07					.13		1.00	.60		.28									.29								T.	2.37
Eagletown	Chowan	.12			.21		.48		.76	.95			.29		T.	T.			.04		.17									3.02
Edenton	Albemarle Sound				.60		.25		.35	1.00			.30																	2.50
Elizabethtown	Cape Fear							.01			.06		.43																	0.50
Enfield (near)	Tar							.70		1.94											.40									3.04
Fayetteville	Cape Fear	.05			.14			.04		.05	.23		.28								.09									0.88
Goldsboro	Neuse	.07			.16			.11		.09	.40		.46																T.	1.29
Graham	Cape Fear	.05			.20			.21		1.08	.54		.33								.30									2.71
Greensboro	do				.28					1.00	.27	.42																		1.97
Greenville	Tar	.10			.14			.06	.01	.08	.60		.40	.04			.01		T.		.01	.06								1.51
Hatteras	Pamlico Sound	T.					.14	.22	T.	.18			.32								.02									0.88
Henderson	Tar and Roanoke			.14	.17		.16		.59	1.29		.12	.15			T.	.04				.33									2.99
Kings Mountain (near)	Santee				.15		.15		*	1.01		.01								*	.85									2.17
Kinston	Neuse	.07			.01				.01	.53			.61								.01									1.24
Lenoir	Santee				.30		.15		.55	.60			.76							.04	.21									2.61
Lincolnton	do			.17				*	*	*	1.14	.35								.31										1.97
Louisburg	Tar	T.			.06			.25		1.25	.70		.34								.20									2.80
Lumberton	Lumber	T.			T.			T.		T.	.04		.50								.02									0.56
Manteo	Roanoke Sound	.16							.08	.18			.48								.04									0.94
Marion	Santee			T.	.41				.73	.66		.03	.21				.01	T.		.02	.17							T.		2.24
Moncure	Cape Fear	.04			.13			.27		.93	.55		.31								.13									2.36
Monroe	Pedee						.15		.16	.90		T.	.32								.30									1.83
Morganton	Santee				.31		.11		.77	.62		T.	.22							T.	.18									2.21
Mount Airy	Pedee	.06			.17		.12		.70	.55			.16							T.	.22						T.			1.98
Mount Holly	Santee				.20	.16			.08	.80	.33		.26								.49									2.32
Nashville	Tar				.08			.45	T.	1.42	.80		.42								.14	.02								3.33
Newbern	Neuse							.20		.07	.20		.41								.04									0.92
Pinehurst	Lumber				.05		.09	.02	.77	.08	.36		.60								.21									2.18
Raleigh	Neuse	.03		T.	.05		.35		.69	.99		.10	.18			.01					.12									2.52
Ramseur	Cape Fear						.15	.01	.35	.45	.01	.35					.03	.01			.31									1.67
Randleman	do				.24				.53	.62	.50						T.				.32									2.21
Reidsville	do				.11			.13	.04	.67	.41		.21								.09									1.66
Rockingham	Pedee						.50		.15										.11											0.76
Rocky Mount	Tar				.15			.60		1.10	.90		.40								.15									3.30
Roxboro	Roanoke				.22			.25	.02	.95	.40		.05				.02		.01		.20									2.12
Salem	Pedee				.35		.48		.76	.55			.28								.20									2.62
Salisbury	do				.19					.74	.50																			1.43
Saxon	Roanoke			.09			.11		.56	.60			.23								.24									1.83
Scotland Neck	Tar	.05			.23		.12	.45	1.05	.84	.04		.31								.15									3.24
Selma	Neuse	.15			.30		.20		.20	.10			.53							.40										1.88
Settle	Pedee						.05	T.	.82	.58		.23					T.	T.		T.										1.68
Sloan	Cape Fear			T.			.01		T.	.15			.36							T.										0.52
Snow Hill	Neuse	.10			.06			.13		.78			.58								.07									1.72
Southern Pines	Cape Fear			T.			.15		.05	.50			.40		T.						.20									1.30
Southport	do				T.					T.	.12		.59								T.									0.71
Statesville	Pedee				.09		.12	.06	.60	.61			.25							T.	.26									1.99
Tarboro	Tar	.02			.15			.20	.01	.39	.89		.36								.12	.01								2.15
Weldon	Roanoke	.05			.05			.30	.02	.71	.56		.16	T.		T.	T.				.10	.06								2.01
Whiteville	Waccamaw									.15		.60																		0.75
Willard	Cape Fear	T.								.20			.45																	0.65
Wilmington	do			.01			T.			.03		.13	.28			T.					T.									0.45
South Carolina.																														
Aiken	Edisto											.30	.65								.21									1.16
Allendale	Savannah				.20								1.25																	1.45
Anderson	do				.25		.22		.27	.69		.48	.27								.75									2.93
Batesburg	Edisto					.19				.04			.52			T.					.34									1.09
Beaufort	Ocean									.05			1.05																	1.10
Blackville	Edisto				.03				.01		.05		1.05		.05						.15									1.34
Blairs	Broad				.06				.84	.24		.60									.56									2.30
Bowman	Edisto							T.		.16	.48																			0.64
Calhoun Falls	Savannah									1.20	.10		1.10								.80									3.20
Camden	Wateree				.02					.02	.04		.84								.04	.02								0.98
Catawba	Catawba				.12			.12	.08	.76	.42		.42								.42									2.34
Chappells	Saluda									.96		.16																		1.12
Charleston	Ocean			T.						.01		.50	.59								.01									1.11
Cheraw	Pedee				.02			T.	.02	.04	.09		.49								.08	.01								0.75
Clemson College	Savannah				.23	.27			.42	.43	.57									1.05										2.97

TABLE 2.—*Daily precipitation for February, 1911. District No. 2*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
South Carolina—Con.																														
Columbia	Congaree			.01	.03		T.		T.	.05		.62	.12				T.				.11								0.94
Conway	Waccamaw										.10		.69																0.79
Dillon	Little Pedee			.01	T.				T.	.06		.21	.30			.02				T.	.03								0.63
Effingham	Lynches										.25		.10	.60															0.95
Ferguson	Santee										.01		1.15																1.16
Florence	Pedee							T.			.12		.82									.18							1.12
Georgetown	Ocean									T.	T.	.65	.45																1.10
Greenville	Saluda							.12	.40	.30	.35	.75	.56								.60								3.08
Greenwood	do				.06			.04	.05	.53	.07		.64								.79								2.18
Jacksonboro	Combahee									T.		T.	1.24								.05								1.29
Kingstree	Black										.70				.05											T.	T.		0.75
Liberty	Savannah			T.	.50		.20	.10	.06			2.84				.02		T.	1.20		T.								4.92
Little Mountain	Saluda			.03					.05	.20		.20	.45								.31								1.24
Meriwether	Savannah			T.			.07			.04		.33	.79				.06				.18								1.47
Newberry	Saluda				.10		.02		.05	.63		.22	.50	.01			.04			T.	.48								2.05
Pelzer	do				.16			.10	.36	.42	.34		.60			.07					.70								2.75
Pinopolis	Cooper									.10		1.20								.06									1.36
St. George	Edisto										.19		1.60								.08								1.60
St. Matthews	Santee												.90								.35								1.17
Saluda	Saluda				.05				.25	.15		.16	.75								.47						T.		1.71
Santuc	Broad				.16		.06		.33	1.04		.24	.23		.02		.07				.04								2.62
Smiths Mills	Pedee				T.					.13		.73								.11								.10	0.90
Society Hill	do			.02			.02		.12	.03		.47															T.		0.87
Spartanburg	Broad		T.		.15			.27	.15	.47	.30		.37		.05						.56								2.32
Summerville	Ashley			T.						.11	.02	.01	1.50								T.								1.64
Trenton	Edisto											.95	.20								.26								1.41
Walterboro	Ashepoo									.06	.01	T.	1.42								.03								1.52
Winnsboro	Broad						T.		.10	.20										.15							.05	.08	0.58
Winthrop College	Catawba				.08		.10		.28	1.20			.40		.03		T.			.02	.31						T.		2.42
Yemassee	Combahee				T.						.05		.90								T.								0.95
Georgia.																													
Abbeville	Ocmulgee								T.		.16		.80								.40								1.36
Adairsville	Coosa				.35		T.	.45	.11	.65	.03		.44			.24					.85						.04		3.16
Albany	Flint				.59						.28	T.	.84	.04			T.				.49								2.24
Allapaha	Allapaha				.05						.32		.74								.25								1.36
Americus	Flint							.12					.92								.65								1.69
Athens	Oconee		T.		.39			.32	.03	.89	.10		.97	.01		.10	T.				.51								3.32
Atlanta	Chattahoochee		T.	T.	.30		.48	.01	.31	.57		.98		T.	.22		T.	.01	T.	.40	.12							T.	3.40
Augusta	Savannah			.03	.02					.04		1.00	.05			T.	T.				.10								1.24
Bainbridge	Flint				.42					T.	.12		.08								.42								1.04
Barnesville	do				.45		.34	.01		.40		.97									.34								2.51
Blakely	Chattahoochee				.94					.25		.42	.07								.79								2.47
Butler	Flint				.08			.74	.28		.14		1.05								.45								2.74
Camak	Savannah												1.20					T.		T.	T.	.04						T.	1.24
Canton	Coosa				.36			.48	.18	.44	T.		.64			.14					T. 1.40								3.64
Carlton	Savannah				.31			.22		1.10	.22		.90			.06					.80								3.61
Clayton	do				.29		.35		.65	.50		.30	.60		T.		T.			.80						T.	T.		3.49
Columbus	Chattahoochee				.04			1.80	.03	.05	.06		1.07		T.		T.				.38								3.43
Covington	Ocmulgee							.53	.10	.90	.30		1.15			.55					.50								4.03
Cuthbert	Chattahoochee									.03				1.00							.77								1.80
Dahlonega	do				.38		.41	.01	.56	.47		.37	.16		.05	.21		T.			.86						T.	.17		3.65
Diamond	Tennessee				.58		.50	T.	.84	.57		.56			.21						.78						.02	.60		4.66
Dublin	Oconee							.16			.18		.92		T.						.20								1.46
Eastman	Ocmulgee											T.	.92	.06							.58								1.56
Eatonton	Oconee			.10			.05			.20		.43	.60																1.38
Elberton	Savannah				.43		.15	T.	.15	1.15		.25	.65				T.				.95								3.73
Experiment	Chattahoochee				.18		.36		.04	.45		.40	.68								.29								2.40
Fort Gaines	do				.15			T.		T.		T.	1.07								.85								2.07
Gainesville	do				.33			.36	.10	.30	.21					.15					.80							.16		2.41
Gillsville	Oconee				.27		.34		.32	.39		.35	.23			.12					.70							T.		2.72
Glennville	Altamaha			.04						.10		76	T							.10									1.00
Gore	Coosa				.29		.45	T.	.16	.59		.40			.18						.52							.70		3.29
Greensboro	Oconee				.30					.32		.25	.99			.18					.53								2.57
Griffin	Chattahoochee				.20			.48	.04	.52	.05		1.28				T.	.03			.50								3.10
Harrison	Ogeechee				.12				.05	.14		1.25									.17								1.73
Hawkinsville	Ocmulgee										.02			.06							1.30								1.38
Helena	do			T.					.01	.19	.01	.11	.72	T.							.21					.09		1.09		1.25
Lafayette	Tennessee			T.	.58		.63		.81		1.32	.46	.07								.55								5.60
Lisbon	Savannah				.23		.02		.23	.38	.28		.70			.03					.70								2.57
Lost Mountain	Chattahoochee						.63			.23		1.22	.24		.06	.22				.63									3.23
Louisville	Ogeechee									.12		1.27		.02							.38								1.79
Lumber City	Ocmulgee										.10		.90								.15								1.15
Lumpkin	Chattahoochee						T.			T.		1.20								.49									1.69
Macon	Ocmulgee				.22		.34			.14		1.10	.01	.04						.01	.52								2.38
Marshallville	Flint				.10			.73		.08	.03	T.	1.19	T.	T.						.35								2.48
Milledgeville	Oconee				.20			.35	T.	T.	.09		1.30								.35								2.29
Millen	Ogeechee												1.00								.22								1.22
Montezuma	Flint							.46			.52	.24	.62								.06								1.90
Monticello	Ocmulgee				.12			.16		.42	.07		1.23					.05			.39								2.44
Morgan	Flint									.48		.75									.65								1.88
Newnan	Chattahoochee				.65			.62		1.18	1.03		1.15			.04		.09			.56								5.32
Norcross	do				.34			.52	T.	.96	.04	.88				.22					.98								3.94
Point Peter	Savannah				.41		.26		.21	1.52			1.07			.07					.76								4.30
Poulan	Suwanee				.17					.19		.85									.40								1.61
Putnam	Flint											1.10									.40								1.50
Quitman	Suwanee				.21						.26										.34								0.81
Ramsey	Coosa				.40		.43	.12	.50	.57		.54	.10		.12	.07					.87						.05	.81		4.58
Resaca	do				.50	T.	.36	.26	.56		.10		.10		.35	.10											.70		.70	3.73
Rome	do				.46		T.	.57	.25	.69	.10		.46		.02	.23		T.			.70							.16	.08	3.72
St. George	St. Marys										.08	T.	T.								T.								0.08
St. Marys	do				.04				.01	.11	T.	T.	.04								T.								0.20
Savannah	Savannah									.11		.46	.13								T.								0.70
Statesboro	Ogeechee				.09		T.			.07		.85	T.								.03								1.04
Talbotton	Chattahoochee				.18		.41	.13	.08	.12		.95	.32	T.			.02				.43								2.59
Tallapoosa	Coosa				.23			.60		1.08	.05		.87			.30		.07											3.20
Thomasville	Ocklocknee				.04					.24		.08	.04								.11								0.51
Tifton	Suwanee				.10					.10		.71	.05								.30								1.26
Toccoa	Savannah				.30			.41	.22	.53			.55								.60								2.61
Valdosta	Suwanee				T.						.30		T.			T.					.40								0.70
Valona	Ogeechee									.20		.40									T.								0.60
Washington	Savannah				.28			.16	.08	.42			1.64				.08	.07			.72								3.45
Waycross	Satilla				.22						.52		.15								.01								0.90
Waynesboro	Savannah				T.						.02		1.35								.02								1.39
West Point	Chattahoochee				.16			.74	.02	.24			1.17								.55								2.88

TABLE 2.—*Daily precipitation for February, 1911. District No. 2*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Florida.																														
Apalachicola	Coast																				.03									0.03
Arcadia	Peace Creek		.01	.01	.02	.01		.01					.04									T.								0.10
Archer	Waccasassa										T.										.55									0.55
Avon Park	Kissimmee																				T.									T.
Bartow‖	Peace Creek																													0.00
Bonifay	Choctawhatchee				T.					.25	.10			.10						.25										0.70
Bradentown	Manatee																				T.									T.
Brooksville	Withlacoochee																				.10									0.10
Carrabelle	Coast									.22											.14									0.36
Cedar Keys	do																													0.00
Clermont	Lake																													0.00
De Funiak Springs	Choctawhatchee				.18					.22		.10	.07								.40									0.97
De Land	St. Johns										.02																			0.02
Eustis‖	Lake																					T.								T.
Federal Point	St. Johns					.01					.07										.01									0.09
Fenholloway	Fenholloway																													0.00
Fernandina	Coast		.03		.16	T.			.02		.09	T.	T.		T.			T.	T.											0.30
Fort Meade	Peace Creek																				T.									T.
Fort Myers	Caloosahatchee											T.									T.									T.
Gainesville‖	Lake								.13																					0.13
Grasmere	do																T.													T.
Hilliard	Nassau									.30																				0.30
Homestead	Coast																													0.00
Hypoluxo	Lake																													0.00
Inverness‖	Withlacoochee																													0.00
Jacksonville	St. Johns				T.					.13		T.	T.	T.			T.	T.			T.									0.13
Jasper	Suwanee				.05							.10	T.								.19									0.34
Johnstown	do									.13											.16									0.29
Jupiter	Coast													.02														.07		0.09
Key West	do									T.							T.	T.		.01										0.01
Kissimmee	Kissimmee																													0.00
Lake City	Suwanee									T.	.20										.15									0.35
Live Oak‖	do				.05						.10																			0.15
Macclenny	St. Marys									.15																				0.15
Madison‖	Suwanee				.04	.01					.03		.08								.09									0.25
Malabar	Indian																.06													0.06
Marianna‖	Apalachicola				.10						.30		T.								.08									0.48
Merritts Island	Indian																.08	T.				T.								0.08
Miami	Coast																				T.									T.
Middleburg	St. Johns											.10																		0.10
Molino	Escambia											T.									1.05									1.05
Monticello	Aucilla									.26											.10									0.36
Newport	St. Marks									.27																				0.27
New Smyrna	Coast										.04						T.													0.04
Orange City	St. Johns										T.																			T.
Orlando	do										T.		.06				T.				T.									0.06
Pensacola	Coast				T.					.24		.11	.01		T.					.02	T.									0.38
Plant City	Hillsboro																													0.00
Rockledge	Indian																													0.00
St. Andrews	Coast				.10					.13			.05								.34									0.62
St. Augustine	do																													0.00
St. Leo	Withlacoochee																				.01									0.01
Satsuma Heights	St. Johns									.11											.03									0.14
Switzerland	do									1.13																				1.13
Tallahassee‖	Ocklocknee				.25								.10								.10									0.45
Tampa	Coast			.01																	.04									0.05
Tarpon Springs	do																				.06									0.06
Titusville	Indian				.02								.05				.02													0.09
Wausau	Choctawhatchee											.60																		0.60
Alabama.																														
Alaga‖	Chattahoochee				.15					T.	.15	T.	.23								.26									0.79
Anniston	Coosa			.17	.06		.84	.01	.38	.86		.77	T.	T.	.20	.01	T.			1.05	.01							.03		4.39
Ashville	do			T.	.37		.75	.05	.20	.85		.50	.02	T.	.25		.01	T.			.67									3.67
Auburn	Tallapoosa		T.	T.	.36		.12	.57	.01	.22		1.12	.22	T.			T.	T.		T.	.72									3.34
Benton‖	Alabama				.49			.12			.10		1.21								.85									2.77
Bermuda	Escambia				.29		T.		.16	.03		.30		T.	.58					.12	.79									2.27
Birmingham	Black Warrior			.40			.64	T.	.37	.74		.59	T.	T.	.22						.72	.01						.02	.04	3.75
Calera‖	Coosa				.45			.33		1.60	.10	.09	.65			.10						.68									4.00
Camp Hill	Tallapoosa				.28		.05	.20	T.				.20							T.	1.08									1.81
Cedar Bluff	Coosa						40	.65				1.17			.25			.50												2.97
Citronelle	Alabama				.15		.18		.28	.03	.01	.05	.01	.01	.04					.20	.76									1.72
Clanton‖	Coosa				.43			.11		.82	.07	.06									.81									3.10
Cochrane‖	Tombigbee							.13		1.36		.05	.60								.03									2.17
Cordova	Black Warrior			.40		T.	.55		1.21	T.		.53			.10					.45							1.07			4.31
Cullman	do				.23		.68	15	.40	.89		.50	T.	.04	.12	.01				.51	T.							.62	.72		4.87
Dadeville‖	Tallapoosa				.27			.42		.48			1.03								1.22									3.42
Daphne	Gulf of Mexico				.62					.45		.12		.35	T.					T.	.52									2.06
Demopolis‖	Tombigbee				.31			.04		.20	.05		.25								.84									1.69
Eufaula‖	Chattahoochee			.02				.12			.04	T.	1.00		.02						.80									2.00
Evergreen‖	Escambia				.06					.10	.30										.18									0.64
Flomaton	do								T.	.04			.06	.03						.08	1.82									2.03
Fort Deposit‖	do				.20					.15	.10		1.35								1.35									3.15
Gadsden‖	Coosa				.38			.58	.09	.72	T.		.68			.24					.44							.16		3.29
Greensboro‖	Black Warrior			.26			1.42		.88	.08		.56			.02					.57										3.79
Greenville‖	Escambia				.22						.40			.72							.45									1.79
Hamilton	Tombigbee				.70	T.	.50	T.	.67	.86	.30	.54			.23						.05						.17	1.61		5.63
Highland Home	Escambia				.18				.10	.15		1.12	.11								.50									2.16
Livingston‖	Tombigbee				.33			.47					.98								.41									2.19
Lock No. 4	Coosa				.41		.93	.02	.26	.89		.54	.18		.18	.17					.60							.12		4.30
Maple Grove	do				.42		T.	.47	.13	.77	T.		.52		.80	.16	T.	T.			.54									3.81
Mentone‖	do			.38			.81		T.	.88		T.		T.							.52							1.04		3.63
Milstead‖	Tallapoosa				.20			.32		.22	.08		1.60								.70									3.12
Mobile	Gulf of Mexico				1.17		T.		.03	.11		.12		.02	.38					.26										2.09
Montgomery	Alabama				.36		.03	.15	.06	.21		1.62		T.	T.	T.				.64										3.07
Newbern	Black Warrior			.35			.86		.34	.12		.46	.02							.88										3.03
Oneonta	do				.35		.90	.05	.11	.84	.01	.65	.03	.30	.25	.02					.43							.84		4.78
Opelika‖	Tallapoosa				.40			.43		.15	.06		1.22					T.			.66									2.92
Ozark‖	Gulf of Mexico				.25								.75							.80										1.80
Prattville	Alabama				.44		T.		1.20	T.		1.10	T.	T.						T.	1.20									3.94
Pushmataha‖	Tombigbee				.41				T.	.34		.41	T.	.10	.15					.72										2.13
Selma‖	Alabama				.26			.14		.10	.02	T.	.70		.10						.78									2.10
Spring Hill	Gulf of Mexico				.84					.11	.06	.09			.02						.85									1.97
Tallassee‖	Tallapoosa				.26			1.41		.22	.06		1.08								.61									3.64

TABLE 2.—*Daily precipitation for February, 1911. District No. 2*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Alabama—Continued.																														
Thomasville‖	Tombigbee				.27					.50	.17	.10	1.40	T.	T.					T.	.50									2.94
Troy	Escambia				.12		.20			.01		1.07	.04	.01	.05		.02			T.	.88									2.40
Tuscaloosa‖	Black Warrior				.28		.02	.35	T.	1.54	.04	.04	.84		.04	.15	T.				.54							.08	T.	3.92
Tuskegee	Tallapoosa						.63	T.				1.00	.72							.56										2.91
Union Springs‖	do							.54		.25		1.28			.04					.34										2.45
Uniontown	Black Warrior				.32		T.	.03	.10	.21		.42	.05	T.	T.						.78									1.91
Valley Head	Coosa				.60		.80	T.	.40	.60	.37			.11						.44							T.	1.12		4.44
Wetumpka‖	do							1.68	.49		.06		1.15								1.81									5.19
Mississippi.																														
Aberdeen‖	Tombigbee				.23		.75		.08	1.80			.50		.30	.06					.53						T.	1.75		6.00
Agricultural College	do				.25		T.	T.	.25	.90	T.	.90	T.	T.	.20					.40							.03	.82	T.	3.75
Bay St. Louis	Coast				.02				.55	.19		.11		.03						.20	.18									1.28
Biloxi	do				.31				.12	.23	.09			.03	.08	.01					1.77										2.64
Booneville	Tombigbee				.21		.92	1.40	1.98	.43		.44	.01	T.	.28					.72							.02	.20		6.61
Brookhaven‖	Pearl				.85							.05	.19	.03							.52									1.64
Columbia‖	do				.38				T.	T.	T.	T.	.14	.03	.14					.06	.62									1.37
Columbus‖	Tombigbee				.28			.04		1.22	T.		1.95	T.	T.	.28		T.	T.		.38							.58	T.	4.73
Crystal Springs‖	Pearl				.40					1.00		.49	.25	.11		.30					.59								.08	3.22
Edinburg	do				.64		.23	T.		1.27		.02	.64		.25					.42								T.	.02	3.49
Enterprise‖	Chickasawhay				.54				T.	.15	.08	.14	.45	.08	.20						.50									2.14
Fulton‖	Tombigbee				.15		.80	.04	1.50	1.04	.01	.02	.42		.20						.55						.26	1.45	.05	6.49
Hattiesburg‖	Leaf				.04		T.	T.	.08		T.	.06	.34	T.	.02						.62									1.16
Hazlehurst‖	Pearl				.12					.90	.03	.38	.19	.10	.03					.20	.49									2.44
Hickory‖	Chickasawhay			.25					1.00			.55			.20					.50										2.50
Jackson	Pearl				.70		T.	T.		.67		.44	.02	.02	.33					.49	.04							.24		2.95
Lake‖	do				.40					1.10	.10	T.	.40	.10	T.					.40										2.50
Lake Como	Leaf				.42					.21		.50	.50	.05	T.					.52										2.20
Laurel	do				.48		T.		.18	.03	T.	.40	.02	T.	.13		T.	T.		.28	.03									1.55
Leakesville‖	Chickasawhay				1.37			.10		.15		.13								.18	.43									2.36
Louisville	Pearl				.26		.34	.03	.74	1.25		.84	.02		.35					.35								T.		4.18
McNeill	do				.15				.22	.63		.12			.60					.60										2.32
Macon‖	Tombigbee				.20					1.77		.05	.60			.09					.25							T.	.15	3.11
Magnolia	Pearl						T.	T.		.06		.08	T.		.10			T.		.55										0.79
Meridian	Chickasawhay			.38			T.		.06	.36		.45	.03	.02	.01		T.			.57										1.88
Merrill‖	Pascagoula									.20		T.								.08	.28									0.56
Monticello	Pearl				.04		T.		T.	.09		.20	.05	T.						.82										1.20
Okolona‖	Tombigbee				.35		.43	T.	.05	1.27		.10	.51		.32						.50						.11	1.87	.08	5.59
Pascagoula	Coast										.16	.15	.17		.14	.01														0.63
Pearlington	Pearl								.20	.10		.05								T.	.21									0.56
Porterville	Tombigbee				.40		.21	.17		1.50		.64		.03	.15					.32										3.42
Shubuta‖	Chickasawhay				.56				.10	.42	.02	.06	.52	.04	.08						.56									2.36
Waynesboro‖	do				.42				.12	.02	T.	T.	.70	T.	.25					T.	.75									2.26
Woodland	Tombigbee				.27		.29		.49	.83		.55			.18					.48							.42	1.29		4.80

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 2, South Atlantic and east Gulf States.*

Date.	Virginia.								North Carolina.																Charleston, S. C.	
	Lynchburg.		Norfolk.		Richmond.		Saxe.		Charlotte.		Edenton.		Fayetteville.		Hatteras.		Newbern.§§		Raleigh.		Reidsville.		Salisbury.		Wilmington.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	41	33	48	39	46	35	46	36	63	42	44	37	62	35	58	42	62	37	54	38	56	37	63	39	71	43	63	53
2....	71	36	71	45	66	39	71	36	70	51	65	44	77	51	63	50	78	41	73	46	73	38	74	45	76	53	69	54
3....	49	32	48	36	43	32	64	33	60	43	53	35	64	44	56	44	53	37	61	39	63	24	66	43	53	46	58	50
4....	64	34	62	38	62	32	64	35	63	40	57	40	69	42	61	48	68	43	64	39	64	31	66	44	69	49	72	52
5....	51	33	51	35	49	30	58	28	54	39	43	37	56	38	50	43	56	39	51	39	.....	.....	65	36	58	44	60	50
6....	33	27	44	34	34	29	46	30	42	33	41	30	46	35	57	43	50	36	40	32	56	29	47	31	56	39	57	50
7....	41	29	43	34	37	28	48	29	56	36	41	36	54	37	46	41	47	37	45	33	45	31	55	34	59	44	57	48
8....	41	34	46	38	39	29	39	32	45	41	41	32	43	38	60	41	57	33	42	38	42	36	49	40	61	44	70	52
9....	40	34	44	37	38	34	39	35	47	41	41	37	43	39	48	42	46	41	42	37	42	32	44	39	56	41	73	51
10....	41	30	44	34	44	28	42	25	49	35	42	33	51	33	50	40	52	32	47	31	49	31	52	29	50	38	56	47
11....	45	26	46	30	48	24	46	20	47	34	40	25	47	27	45	38	50	25	46	30	46	26	44	28	50	32	54	42
12....	54	31	49	37	55	34	59	32	59	35	44	35	61	36	47	42	54	34	58	35	59	32	61	39	56	40	57	43
13....	65	31	61	34	63	32	62	27	61	42	63	29	67	34	58	40	71	29	64	34	67	32	64	32	64	37	62	43
14....	58	42	64	33	59	37	62	40	67	44	67	43	75	46	61	48	71	31	72	44	68	39	70	43	72	50	72	51
15....	46	33	43	38	41	33	48	37	66	42	63	34	66	43	57	44	50	45	61	40	63	39	66	39	61	48	78	53
16....	39	32	42	36	43	33	40	32	44	40	50	33	51	39	46	42	56	36	46	37	41	33	65	38	54	42	57	49
17....	62	38	56	36	58	36	58	38	55	42	59	38	64	37	56	42	64	33	60	38	53	38	55	41	68	39	62	45
18....	67	48	69	45	66	43	70	37	75	49	73	48	79	49	62	47	77	45	74	50	74	49	76	49	75	53	74	53
19....	48	30	45	37	43	33	45	34	60	40	48	34	70	45	47	42	58	42	50	37	63	35	66	40	58	45	73	55
20....	44	29	46	36	46	31	51	31	53	34	50	37	56	39	64	43	66	37	54	33	52	30	57	32	71	41	70	45
21....	32	24	38	28	38	25	41	21	42	26	48	27	44	26	43	32	46	27	40	28	41	31	54	40	46	32	49	38
22....	36	20	40	25	41	21	42	19	47	21	43	23	49	22	44	30	47	22	43	22	45	23	50	19	47	28	49	31
23....	45	28	44	29	47	25	49	22	51	26	48	25	50	25	45	33	49	22	46	27	51	29	56	21	47	28	50	33
24....	51	30	54	32	50	29	55	26	57	32	59	31	61	28	52	39	59	25	55	30	57	38	60	42	60	33	61	37
25....	64	30	63	35	64	32	65	27	61	33	62	28	68	30	56	39	71	25	63	37	66	29	70	39	62	36	59	38
26....	67	32	70	41	70	38	68	28	68	42	72	40	73	34	64	48	72	32	71	39	71	38	71	38	71	44	71	46
27....	64	46	63	49	68	43	72	27	69	53	69	49	75	48	63	48	74	41	68	52	70	46	72	48	76	53	74	52
28....	48	33	49	36	45	31	58	28	59	45	63	37	64	43	50	39	61	41	58	39	58	39	63	37	64	44	70	55
Mns..	50.2	32.3	51.4	36.3	50.0	32.0	54.0	30.2	56.8	38.6	53.2	34.9	60.2	37.2	53.9	41.8	59.5	34.6	55.3	36.6	56.9[a]	33.9[a]	60.8	37.3	61.3	41.6	63.5	47.0

Date.	South Carolina.														Georgia.											
	Columbia.		Conway.§§		Ferguson.§§		Georgetown.		Greenville.§§		Newberry.		Society Hill.		Adairsville.§§		Albany.§§		Atlanta.		Augusta.		Dahlonega.		Macon.		Savannah.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	68	47	71	40	.....	.....	68	45	75	44	72	45	62	55	71	35	79	57	63	55	72	50	67	48	69	57	70	51
2....	72	54	80	56	.....	.....	76	53	71	47	70	54	71	49	70	46	79	56	67	52	69	50	72	50	66	53	71	56
3....	59	46	60	50	.....	.....	65	49	72	47	64	48	53	43	64	44	68	55	65	51	61	50	63	43	71	53	68	53
4....	68	45	73	49	.....	.....	76	50	53	40	63	42	68	41	64	45	78	58	64	45	70	50	62	38	71	50	76	55
5....	59	43	71	39	.....	.....	64	45	65	40	59	39	57	38	67	41	73	46	57	41	63	43	56	42	61	45	64	49
6....	47	40	59	40	.....	.....	55	43	61	40	52	39	45	38	53	42	78	44	48	41	60	42	51	39	68	44	70	49
7....	62	41	68	43	.....	.....	62	45	75	38	63	39	57	43	62	43	75	61	63	41	61	43	66	39	59	44	67	47
8....	66	50	72	48	.....	.....	68	49	50	47	59	47	53	44	65	45	80	59	65	54	68	55	59	52	71	55	77	52
9....	51	48	64	50	.....	.....	72	50	51	47	50	47	47	37	62	61	68	56	56	43	57	51	54	44	60	48	71	55
10....	49	36	53	39	.....	.....	56	42	52	32	50	37	49	38	44	34	55	46	43	35	51	37	44	33	50	39	58	44
11....	48	33	52	28	.....	.....	52	35	68	35	44	33	46	35	45	35	59	45	42	34	50	37	40	32	46	38	56	42
12....	59	36	60	39	.....	.....	60	41	61	34	58	35	57	33	.....	35	53	43	52	35	56	38	58	33	48	38	60	42
13....	63	35	68	34	.....	.....	64	40	65	41	55	35	62	46	60	.....	77	44	58	38	58	37	66	49	60	43	67	40
14....	76	49	78	45	.....	.....	75	50	70	45	69	45	71	57	71	.....	80	45	69	51	74	51	59	51	74	52	78	51
15....	77	49	73	59	.....	.....	76	52	80	49	76	56	69	57	70	53	77	53	72	60	77	59	71	42	78	54	79	55
16....	49	44	61	46	.....	.....	55	45	50	42	65	44	66	41	58	48	68	55	61	46	55	48	67	43	58	52	56	50
17....	68	46	72	39	.....	.....	66	41	54	44	63	46	56	40	64	49	74	46	63	46	68	48	56	45	66	51	67	45
18....	75	50	79	52	.....	.....	74	42	75	45	73	49	73	48	73	43	81	51	72	51	75	46	69	44	75	46	74	51
19....	68	52	69	51	.....	.....	67	52	50	48	63	48	57	44	73	47	68	52	71	54	69	55	65	44	74	53	75	54
20....	60	40	71	45	.....	.....	73	50	60	39	57	40	56	30	40	38	51	50	61	30	64	37	54	32	64	35	70	38
21....	45	30	49	30	.....	.....	52	33	45	27	49	28	44	25	39	26	49	32	38	25	48	32	37	23	45	31	52	34
22....	49	25	50	29	.....	.....	48	29	51	20	48	22	47	24	44	20	50	28	40	20	49	27	40	18	48	26	50	31
23....	50	27	50	25	.....	.....	58	28	54	26	52	23	47	27	50	23	54	29	50	25	53	30	50	25	53	30	54	32
24....	59	33	64	27	.....	.....	61	35	60	25	59	27	58	30	51	28	56	30	48	30	57	31	47	31	53	30	57	36
25....	65	34	67	28	.....	.....	62	34	64	29	65	28	61	38	62	24	59	28	64	33	65	33	66	34	66	35	64	37
26....	72	42	75	31	.....	.....	72	38	67	34	71	32	69	46	61	34	76	34	70	44	72	35	57	35	72	37	72	45
27....	76	53	80	46	.....	.....	78	50	73	44	75	46	72	49	65	52	81	46	69	53	78	47	65	51	79	50	77	53
28....	68	51	68	49	.....	.....	68	52	.....	43	69	46	64	36	.....	42	83	49	67	46	74	55	67	41	77	51	72	55
Mns..	61.7	42.1	66.3	41.3	.....	.....	65.1	42.5	62.3[a]	38.9	61.2	40.0	58.5	40.4	59.5[b]	39.8[b]	68.9	46.4	59.2	42.1	63.4	43.5	58.1	39.3	63.6	44.3	66.9	46.5

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 2*—Continued.

Date.	Georgia.						Florida.																			
	Thomasville.		Waycross. §§		West Point. §§		Avon Park.		Fort Myers.		Gainesville. §§		Jacksonville.		Jupiter.		Key West.		Miami.		Orlando.		Pensacola.		Tallahassee.§§		Tampa.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	79	56	77	51	68	39	79	52	77	63	80	54	76	55	78	59	74	67	79	61	80	51	70	62	77	52	76	61
2....	78	58	77	57	66	49	78	50	75	57	84	55	76	61	79	62	77	66	80	60	78	51	77	63	75	59	76	58
3....	78	55	74	51	67	53	82	56	73	59	81	57	74	58	78	58	76	66	80	60	79	53	71	62	78	59	74	58
4....	77	52	77	54	67	52	80	55	75	57	80	61	79	62	77	60	77	68	78	60	80	57	75	63	77	62	74	59
5....	73	48	75	45	62	44	81	52	75	53	81	60	73	56	78	57	79	69	81	60	81	55	66	57	74	64	78	58
6....	78	55	77	49	66	45	85	51	80	57	81	56	78	56	78	62	78	69	80	68	81	57	71	65	74	59	78	56
7....	80	58	75	52	62	45	86	52	82	55	79	51	76	54	80	61	79	69	81	60	82	53	71	65	75	60	79	59
8....	78	57	80	55	69	49	82	54	82	56	82	56	79	56	79	68	79	69	81	68	83	55	73	65	76	58	80	58
9....	71	53	71	54	57	55	81	54	79	53	79	57	76	57	78	63	80	70	82	68	83	55	68	52	71	55	76	60
10....	55	46	59	47	49	41	75	55	75	62	66	50	62	50	75	62	77	70	82	62	75	59	55	49	57	48	72	56
11....	64	42	62	45	43	40	82	58	82	57	73	48	68	52	78	71	81	70	81	64	77	55	65	49	66	44	78	54
12....	65	47	55	48	47	37	84	59	81	60	77	54	69	49	84	66	81	69	84	64	82	63	63	52	68	45	78	62
13....	71	46	68	45	60	40	85	58	81	63	78	53	70	48	80	68	80	69	79	62	80	59	69	61	73	47	76	62
14....	79	52	78	47	73	44	86	58	82	63	82	56	79	55	79	65	81	70	81	68	85	54	70	65	76	50	80	64
15....	79	59	78	54	76	58	84	57	82	60	76	60	76	59	80	61	78	68	82	58	83	56	73	65	79	59	82	62
16....	66	55	78	50	59	49	80	57	84	62	72	59	64	56	78	70	80	70	82	68	81	54	70	62	72	59	80	60
17....	73	54	74	54	67	53	76	59	77	61	73	58	68	54	76	68	78	70	73	69	75	57	67	60	73	55	76	60
18....	78	52	78	48	76	48	81	50	78	58	79	48	77	50	76	68	77	70	79	66	81	52	73	64	76	54	76	56
19....	78	52	79	50	77	49	83	53	80	55	80	52	76	56	76	61	80	70	83	65	83	55	71	64	75	53	77	59
20....	68	40	66	59	44	43	85	57	80	58	74	59	72	46	80	65	82	71	85	66	85	56	64	37	60	56	75	57
21....	50	33	54	38	43	29	73	51	67	54	55	37	55	36	72	58	74	63	76	63	74	45	50	33	60	33	62	44
22....	49	30	51	30	45	23	63	42	65	45	53	33	51	35	66	48	67	58	71	55	64	39	48	31	50	31	56	41
23....	57	28	58	31	50	24	63	40	60	40	57	29	55	34	64	42	64	56	71	45	63	36	56	30	56	30	58	37
24....	58	32	58	32	53	27	67	31	63	39	60	33	59	38	67	40	67	58	71	45	65	29	58	38	57	32	60	39
25....	69	29	70	31	63	25	67	31	68	42	69	33	68	39	68	43	67	57	73	43	71	30	61	43	64	35	66	42
26....	73	34	75	34	72	28	70	34	77	44	75	35	73	47	77	66	76	57	78	62	79	42	69	58	70	40	75	44
27....	78	43	80	45	79	39	75	55	80	55	81	54	76	54	76	67	78	64	81	67	80	51	69	55	76	48	79	55
28....	82	48	82	48	76	44	84	53	81	59	81	52	81	55	80	69	78	67	82	63	82	51	73	57	80	50	81	58
Mns..	70.9	46.9	70.9	46.6	62.0	41.9	78.5	51.2	76.5	55.2	74.6	50.4	70.9	51.0	76.4	61.0	76.6	66.4	79.1	61.4	78.3	51.1	66.6	54.5	70.2	49.9	74.2	55.0

Date.	Alabama.																Mississippi.							
	Anniston.		Bermuda.		Birmingham.		Eufaula.§§		Mobile.		Montgomery.		Tuscaloosa.§§		Uniontown.		Columbus.§§		Hattiesburg.§§		Jackson.		Meridian.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	71	59	78	60	75	57	74	45	75	62	77	59	72	44	78	57	82	49	80	56	82	60	78	59
2.....	68	54	78	52	66	56	67	54	78	63	66	57	66	44	71	58	72	53	83	61	76	60	72	57
3.....	69	54	.....	.....	70	55	72	50	76	62	73	55	78	52	74	52	76	46	78	59	76	61	74	54
4.....	66	47	75	52	66	48	72	53	75	60	72	53	48	45	73	51	66	43	80	58	72	51	69	48
5.....	62	42	72	45	60	44	66	44	70	55	65	46	65	45	67	45	63	44	75	54	74	52	69	47
6.....	58	48	79	.....	63	53	71	50	77	64	73	56	70	45	71	56	78	46	83	55	78	64	76	62
7.....	62	47	76	62	64	53	72	55	73	65	78	57	73	57	77	61	75	55	82	57	79	60	77	60
8.....	64	56	77	60	65	55	73	58	71	65	70	58	63	60	71	59	66	57	80	65	72	63	72	57
9.....	56	41	65	51	56	42	66	60	66	54	58	48	55	50	60	50	57	43	61	61	63	45	57	47
10.....	46	36	53	44	47	36	52	41	57	50	50	43	48	38	53	41	49	38	62	47	53	44	50	42
11.....	44	36	51	44	44	38	54	40	58	48	45	40	43	38	46	39	43	38	61	46	47	38	43	38
12.....	50	39	58	44	48	40	51	38	64	48	50	40	50	39	51	39	49	39	57	45	56	42	50	43
13.....	62	44	74	52	60	44	64	40	70	58	67	46	67	38	70	48	66	43	80	47	78	52	73	48
14.....	73	59	77	62	72	60	73	45	70	64	76	59	70	39	77	60	75	49	83	55	80	61	75	63
15.....	76	57	79	.....	75	62	73	56	74	64	76	62	71	57	73	64	77	53	86	63	86	62	79	64
16.....	65	51	79	.....	69	55	61	51	75	65	65	56	75	57	71	57	72	53	83	63	82	62	75	61
17.....	69	51	77	57	72	55	69	52	71	62	74	56	75	55	76	56	70	60	79	57	79	62	72	61
18.....	75	51	78	48	76	57	73	47	73	61	76	52	72	54	79	51	77	57	82	56	82	60	78	57
19.....	73	53	76	60	70	44	73	48	71	56	72	53	75	52	76	59	75	56	80	54	74	50	78	46
20.....	53	31	69	39	44	29	48	45	56	39	53	33	56	38	74	37	38	36	44	42	54	39	46	33
21.....	41	27	47	30	41	27	44	28	50	34	45	31	47	28	45	30	42	27	56	32	46	30	44	29
22.....	44	22	46	26	44	21	45	25	48	31	46	26	42	23	47	25	45	23	53	28	46	26	44	25
23.....	51	25	55	27	51	26	56	27	57	32	52	31	57	23	55	26	50	23	62	24	56	25	52	27
24.....	52	28	57	28	52	28	54	32	59	38	55	33	54	24	57	29	54	24	62	28	57	28	54	30
25.....	64	25	65	35	62	31	62	30	61	37	64	35	65	24	62	29	63	26	65	32	65	30	62	29
26.....	72	48	76	43	72	51	70	34	70	55	74	48	75	24	77	45	75	27	80	53	80	56	77	55
27.....	68	50	79	46	66	50	72	41	74	54	78	55	62	52	78	53	65	54	80	51	69	61	70	55
28.....	66	43	80	49	61	46	76	45	78	56	78	53	65	45	75	48	59	45	80	52	70	52	71	43
Means.....	61.4	43.7	63.6[a]	49.8[d]	61.1	45.1	64.4	44.1	67.8	53.6	65.3	47.9	62.8	42.5	67.3	47.3	63.5	43.0	72.8	50.0	69.0	49.9	65.6	48.0

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 3, OHIO VALLEY.

FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

The unseasonably warm weather which so largely prevailed during January continued with but one brief interruption during nearly all of the first and second decades of February, one or two days of moderately cold weather occurring about the 10th. A spell of quite cold weather prevailed from the 19th to the 24th, inclusive. No extremely low temperatures were registered, however, the lowest for the entire district being −2°. Remarkably high temperatures for February, 70° to 80°, were registered in nearly all parts of the district, these high temperatures occurring on several days and in at least two distinct periods. Precipitation was unusually frequent, but the total amount was generally below normal for the season, although ample for all needs. The amount varied from less than 2 inches in the more northerly sections to 5 inches and over in the extreme southerly sections. The distribution was good, and in agreement with the usual distribution, the larger amounts occurring where the normal is greatest and the smaller where it is least. Snowfall was generally inconsiderable over the southern half of the district, but considerable, although varying irregularly in quantity in the northern half. It remained on the ground, however, during comparatively short periods.

The month was mostly cloudy and the weather generally unsettled. Sunshine was largely deficient, there being, as a rule, less than 50 per cent of the possible amount for this season of the year. Only 26 per cent was registered at Pittsburg, Pa. High winds occurred frequently, but there was little or no damage done, except at some localities in Tennessee. Noteworthy events of the month other than those above mentioned were the thunderstorms which occurred early in the month and the severe storm, mostly sleet, which occurred about the 19th.

The mild weather was generally favorable for agricultural and other outdoor pursuits. Growing temperatures and frequent precipitation brought vegetation to an unusually advanced stage by the middle of the month, especially in the more southerly sections. In Tennessee and to the southward early plum and peach trees had bloomed, and shrubbery had budded in the more northerly sections. In this situation the freezing weather during the 20th–25th did some harm, but it is generally thought that fruit buds were not seriously damaged, and the cold spell gave a timely check to budding trees and advantageously retarded other generally too much advanced vegetation.

When the month began, an extensive area of low pressure overspread the central districts west of the Mississippi River. This depression moved eastward during the 1st, causing high southerly winds, high temperatures, and fair weather generally over the district. By the morning of the 2d it was centered about Lake Erie. During the 2d an area of high pressure, attended by cloudy and decidedly colder weather, moved across the Ohio Valley, and on to the North Atlantic States by the morning of the 3d, by which time the west Middle States were again overspread by a marked area of low pressure. This new disturbance moved eastward during the 3d, the main path of center of action lying near the Ohio River, and on the morning of the 4th was centered about Lake Erie. Its passage was attended by thunderstorms and rain in all parts of the district and by heavy rains in the southern portion, when also the lowest barometer of the month was registered at most stations. It was closely followed by an area of high pressure with fair and colder weather, which had overspread the entire district by the late afternoon of the 4th. During the 5th another general barometric disturbance, which had crossed the Central Rocky Mountain section, advanced across the west Central States and by the morning of the 6th was centered in the Ohio Valley. This disturbance was attended by rain and thunderstorms in sections from Kentucky southward and by rain, sleet, and snow from the Ohio River northward and eastward. High pressure largely prevailed after the 6th until the 13th, although the weather continued unsettled and the skies mostly overcast. Also heavy sleet and snow fell over localities in the southeastern portion of the district on the 11th. During the 13th another marked disturbance moved across the west Middle States and into the Ohio Valley and Lake Region by the morning of the 14th, attended by warm, cloudy weather and rain. From the 15th to the 18th, inclusive, high pressure predominated, but the weather continued cloudy and unsettled. During the 19th a storm, which was centered in the morning in the lower Mississippi Valley, moved northeastward across Tennessee and on to the Middle Atlantic States by the morning of the 20th. This disturbance was attended by rain, heavy sleet and snow, and high winds over the Ohio River Basin, and was followed by the only real cold weather of the month. High pressure prevailed during the rest of the month, except about the 25th–26th, when a general barometric disturbance passing rapidly eastward along the northern storm path crossed the northern portion of the district, the path of the center being over the Lake Region. The highest barometer readings of the month were registered at most stations on the 28th, when there was also light rain or snow over most of the district.

TEMPERATURE.

Unusually high temperature prevailed during the greater portion of the month, and the average temperatures of the month, ranging between 5° and 10° above

normal at the various stations in the district, were about as high, and at some stations the highest, for any February of record, except February, 1909. Maximum temperatures ranging between 52° and 66° were registered in the western portions of New York, Pennsylvania, and Maryland, and between 70° and 84° in all other portions of the district. Minimum temperatures below zero were registered during the month at only two stations in the entire Ohio River Valley. These records were: Garrettsville, −2°, and New Waterford, −1°, both in Ohio, on the 21st. At two other stations only, Bolivar, N. Y., and Sagerstown, Pa., was the temperature as low as zero.

The month opened remarkably warm, the average temperature of the 1st ranging from 6° to 23° above normal in the several sections, and maximum temperatures of 60° to 70° and over were registered at many stations both north and south of the Ohio River. The temperature continued unseasonably high during nearly all of the first decade, but a change to colder came about the 9th, due to an area of high pressure with moderately cold weather moving across the district from the western plains, and on the 10th and 11th temperatures were below normal for the first time during the month. Minimum temperatures ranging between 5° and 20° were registered in sections north and east of the Ohio River and between 18° and 28° in sections south of that river. This short cold spell was followed by another remarkably warm period, continuing from about the 12th to the 18th, inclusive, when average daily temperatures again ranged between 6° and 28° above normal, and maximum temperatures ranging between 60° and 84° were registered, 84° occurring at Dover, Tenn., on the 17th. The only real cold period of the month set in about the 19th and continued until the 24th, during which time average daily temperatures were 4° to 17° below normal and minimum temperatures ranging between −2° and 20° were registered. The coldest day of the month varied between the 21st, 22d, and 23d, according to locality. During the 25th, 26th, and 27th the temperature was again above normal, but it was moderately cold on the 28th, when the average temperatures ranged from 2° to 8° below normal.

PRECIPITATION.

The total amount of precipitation for the month, a combination of rain, sleet, and snow, was below normal in all sections of the district, except over the headwaters of the Allegheny River in New York State and over a few localities in Kentucky and Tennessee. Normal precipitation for the month of February over the Ohio River Basin ranges about as follows: 4 to 6 inches over the watersheds of the Tennessee and Cumberland Rivers in Alabama, Georgia, North Carolina, and Tennessee; 3 to 4 inches in Kentucky and the upper watershed of the Ohio River and tributaries in West Virginia, Maryland, Pennsylvania, and New York; and 2.5 to 3 inches over the watersheds of the tributaries in Ohio, Indiana, and Illinois. During the month of February, 1911, the total precipitation measured from 4 to 5.5 inches over southwestern Kentucky, nearly all of Tennessee, except the extreme western and extreme eastern portions, and over all the southern border sections, except in northwestern North Carolina. It was from 2 to 4 inches over the rest of the Ohio Basin south of the Ohio River, including the extreme southwestern portion of West Virginia, over the southern portion of Illinois and Indiana, the extreme southern and northeastern portions of Ohio, and over most of western Pennsylvania and southwestern New York. It was less than 2 inches over the central portions of Illinois and Indiana, nearly all of Ohio, and considerable of West Virginia.

Precipitation was frequent during the month, occurring in some or all sections nearly every day. The most pronounced periods when precipitation was more or less heavy and general were the 4th to 10th, 14th, and 18th to 21st. Snow or sleet, or both, fell in large amounts on the 6th, 10th, 11th, and 19th–22d, and light snow generally on the 28th. The sleet and snow storms of the 6th and of the 19th–20th were the most important precipitation events of the month, while thunderstorms which occurred so generally over the district on the 3d and 4th and daily over Kentucky and Tennessee in the entire period, 3d to 8th, were very unusual for the month of February.

The total snowfall of the month was generally inconsiderable in amount over the southern portion of West Virginia and over the sections south of the Ohio River, except in the extreme southeastern portion of Tennessee, in the vicinity of Chattanooga and bordering sections of North Carolina. In these localities from 2 to 5 inches of snow fell on the 11th during a storm which was quite limited in area. Over the sections north of the Ohio River, the northern portion of West Virginia, western Pennsylvania, and southwestern New York the total snowfall varied between 2 and 18 inches, the larger quantity as a rule occurring in the northeastern quarter of the district.

The ground was practically free of snow in all parts of the district up to the 5th, inclusive. The snowstorm of the 5th-6th covered the ground in the northern half of the district to depths ranging from about 2 to 7 inches. This covering, however, under the influence of melting temperature, rapidly disappeared, and in a week about all that remained was from 1 to 3 inches over the upper watershed of the Allegheny River, while by the 15th there was none anywhere in the district. The snow and sleet storm of the 19th–20th again covered the ground in the northern and northeastern sections to depths varying from 1 to 6 inches, but this covering had mostly disappeared by the end of the month.

MISCELLANEOUS.

Pennsylvania.—Streams maintained a good flow through the month, and no rapid changes in stages occurred. High winds were of frequent occurrence, but no serious damage was reported.

West Virginia.—Rain, warm weather, and melting snow the latter part of January caused stages in the Ohio River near or slightly above the flood line during the first day or two of the month.

Kentucky.—Thunderstorms occurred daily in some parts of the State during the period 3d–8th. There was some slight damage from lightning and high winds. Buds of peach trees and early varieties of plums and cherries were swelling and breaking out, rose bushes and other shrubbery were budding and leafing, tulips and crocusses had appeared, and grass was green by the middle of the month. The severe sleet storm of 19th–20th caused much damage throughout the State, particularly to transportation and electric trolley lines and telephone and telegraph wires. The storm was especially severe through the central and Blue Grass sections of the State. In these sections numerous towns and cities were cut off from communication for nearly 24 hours, and interurban car service was suspended. High water in the upper

Kentucky River during the month enabled lumbermen to get down great quantities of logs from the Kentucky mountains.

Indiana.—There was some damage and delay to wire and rail traffic by sleet storms of the 5th–6th and 19th–20th. The floods which were in progress in sections of the Wabash River and at a few stations on the Ohio River at the beginning of the month had subsided by the 6th. No large amount of damage was caused.

Illinois.—Considerable disturbance and delay in railroad service was caused by the snow and sleet storm of the 19th–20th, otherwise transportation and business in general were carried on without interruption. Flood stages obtained on the Wabash River at Mount Carmel from the 1st to the 6th and at Shawneetown on the Ohio River from the 6th to the 13th. No important damage resulted.

Tennessee.—Thunderstorms were numerous in the period 3d to 8th. Considerable damage resulted from lightning and high winds, which accompanied the storms of the 3d. At Selmar, Tenn., a child was killed and several persons seriously injured during one of these storms, and dozens of farmhouses were blown down. The Cumberland and Tennessee Rivers were at high stages from the 8th to the 16th, but subsided to low stages by the end of the month. The flood line was passed at a few places on the Tennessee River in Tennessee and Alabama during the high water.

ENGINEERING NOTES.

The following item is furnished by Veile, Blackwell & Buck, consulting engineers, New York, through the courtesy of Mr. A. H. Horton, engineer, United States Geological Survey, Newport, Ky.:

We take pleasure in sending you herewith a statement of the hydraulic developments on New River proposed by the New River Power Co.

During the past year the New River Power Co. has made a careful study of the water supply between Fries and Radford, Va., and has done extensive surveying with the view to developing the water power there available. About 1 mile below the town of Fries, in southwestern Virginia, the New River begins a series of rapids aggregating 185 feet in 8 miles, and 25 miles farther downstream there is another series of rapids aggregating 32 feet. The property required for the development of these falls is either secured or under option. It is proposed to utilize the upper falls by a series of four dams and power houses and the lower ones by another single dam and power house. In the initial development some steam power is planned to maintain the plant capacity during low-water seasons, and no storage will be developed at present, but for use in later developments, which will be made as market conditions demand, two storage sites have been secured by options. At each of these sites it is planned to erect power houses when it may become necessary.

The capacity of the proposed development is given in the following table, which is based upon a 40 per cent load factor:

Development No.—	Drainage area (square miles).	Head (feet).	Apparatus installed (electric horsepower).
1	1,163	52	15,000
2	1,310	49	15,000
3	1,318	21	5,000
4	1,320	41	9,000
5	2,257	42	16,000
Total		205	60,000

TABLE 1.—*Climatological data for February, 1911. District No. 3, Ohio Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New York.																				
Allegany	Cattaraugus	1,441	5	28.2	.....	51	25	8	6†	27	3.61	.....	1.05	16.0	16	5	5	18	nw.	Chas. E. Whitney.
Bolivar	Allegany	1,800	17	27.6	+ 6.9	52	25	0	23	45	3.68	+ 1.54	0.93	22.5	14	4	7	17	sw.	B. O. Newton.
Franklinville	Cattaraugus	1,598	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Olean	....do	.....	3	.....	.....	.....	.....	.....	.....	.....	3.35	.....	0.92	15.2	14	6	3	19	w.	John W. Alles.
Pennsylvania.																				
Aleppo	Green	1,135	10	36.5	+ 8.2	66	14	13	22	31	1.65	− 1.11	0.40	7.0	8	9	1	18	sw.	J. S. Hinerman.
Baldwin	Butler	1,404	5	30.8	.....	58	17	10	11	28	3.09	.....	0.85	12.0	9	2	7	19	w.	S. H. Templeton.
Beaver Dam	Beaver	674	17	.....	.....	.....	.....	.....	.....	.....	2.44	+ 0.17	0.57	.....	15	.....	.....	.....	sw.	U. S. Engineer.
Brookville	Jefferson	1,173	0	31.7	.....	58	17	8	11	31[a]	2.92	.....	0.56	.....	13	.....	.....	.....	w.	H. C. Bartholamew.
Clarion	Clarion	1,078	26	.....	.....	.....	.....	.....	.....	.....	3.01	− 0.54	0.80	13.5	10	.....	.....	.....	w.	J. A. Miller.
Claysville	Washington	1,127	7	37.0	.....	65	14	13	22	33	2.09	.....	0.60	7.0	8	5	13	10	w.	E. T. Buchanan.
Confluence	Somerset	1,352	27	.....	.....	.....	.....	.....	.....	.....	2.38	− 1.18	0.58	.....	13	.....	.....	.....	.....	Grant Pyle.
Franklin	Venango	955	37	29.8	+ 6.4	59	18	8	21	28	2.95	− 0.33	0.64	8.0	15	2	5	21	w.	F. E. Dixon.
Freeport	Armstrong	772	38	.....	.....	.....	.....	.....	.....	.....	2.45	− 0.88	0.53	11.8	16	.....	.....	.....	.....	Mrs. Anna R. Burener
Greensboro	Green	768	22	.....	.....	.....	.....	.....	.....	.....	2.91	− 0.16	0.75	5.5	11	.....	.....	.....	se.	James G. Kramer.
Greenville	Mercer	950	15	31.6	+ 6.3	61	17	5	11	34	2.17	− 0.49	0.53	10.0	9	7	4	17	nw.	A. M. Orr.
Indiana	Indiana	1,350	14	33.2	+ 4.7	60	17	10	11	30	2.51	− 0.47	0.53	7.7	8	9	4	15	s.	R. W. Wehrle.
Johnstown	Cambria	1,184	23	33.4	+ 4.6	63	17	16	22	28	2.92	− 0.99	0.74	13.2	13	2	11	15	sw.	E. C. Lorentz.
Lock No. 4	Washington	718	25	.....	.....	.....	.....	.....	.....	.....	1.78	− 1.14	0.35	10.0	11	.....	.....	.....	w.	R. T. McGowan.
Lycippus	Westmoreland	1,420	19	34.4	+ 7.8	60	18	13	22	28	2.34	− 0.54	0.58	8.4	11	.....	.....	.....	.....	Murray Forbes.
Pittsburg	Allegheny	842	41	35.3	+ 3.5	64	17	14	21	33	1.98	− 0.68	0.56	8.6	13	4	8	16	nw.	U. S. Weather Bureau.
Saegerstown	Crawford	1,116	20	30.8	+ 8.1	59	18	0	23	36	3.04	− 0.27	0.86	7.5	16	5	5	18	sw.	J. G. Apple.
Skidmore	Lawrence	1,000	7	31.5	.....	60	17	7	11	30	.....	.....	.....	.....	.....	8[a]	3[a]	16[a]	sw.	W. H. Stoner.
Somerset	Somerset	2,250	55	29.0	+ 2.5	58	17	10	11†	31	3.48	− 0.77	0.80	16.1	10	0	12	16	nw.	W. M. Schrock.
Uniontown	Fayette	999	23	36.2	+ 5.1	66	14	16	22	31	2.77	− 0.42	0.52	8.5	12	7	2	19	nw.	Wm. Hunt.
Warren	Warren	1,137	22	28.5	+ 5.8	53	17	5	23	29	3.76	+ 1.13	0.90	14.1	11	5	0	23	nw.	Anna Simpson.
Maryland.																				
Deer Park	Garrett	.....	17	30.6	+ 5.4	57	17†	8	22	32	1.75	− 1.46	0.35	12.0	10	.....	.....	.....	.....	S. P. Specht.
Grantsville	....do	.....	17	31.0	+ 6.2	64	2	10	22	34	1.40	− 1.98	0.40	14.0	8	4	5	19	.....	J. S. Miller.
Oakland	....do	.....	11	31.9	+ 5.7	58	17	9	22	31	1.75	.....	0.30	9.8	13	3	11	14	w.	R. E. Weber.
West Virginia.																				
Bancroft	Putnam	574	9	40.0	.....	75	14	15	22	46	3.11	.....	1.07	0.5	11	9	3	16	sw.	James Hill.
Beckley	Raleigh	2,440	12	41.3[1]	.....	66	2	16	11	37[1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	John A. Ewart.
Bens Run	Pleasants	622	10	39.0	+ 8.6	68	14	17	22	28	2.69	− 1.21	0.69	7.0	10	18	2	8	.....	J. D. Riggs.
Bluefield	Mercer	2,563	17	40.4	+ 7.8	71	3	11	22	40	2.52	− 0.87	0.91	T.	5	7	18	3	.....	Norfolk & Western Ry.
Buckhannon	Upshur	1,472	20	38.8	+ 8.0	68	14	14	11†	32	1.98	− 1.90	0.54	5.0	9	9	9	10	.....	H. A. Darnall.
Cairo	Ritchie	667	10	42.4[d]	+ 8.5	70	15	13	11	32[d]	0.86	− 1.82	0.20	2.5	7	0	18	10	w.	Van A. Zevely.
Central Station	Doddridge	900	11	37.0	+ 7.1	70	14	10	11	37	1.22	− 2.03	0.50	3.8	11	2	15	11	w.	G. W. Sherwood.
Charleston	Kanawha	598	24	44.4	.....	75	14†	19	22	36	2.51	− 1.14	.....	T.	8	15	4	9	w.	R. C. Hewes.
Creston	Wirt	612	11	40.2	+ 9.2	72	14	12	22	33	2.00	− 0.68	0.57	2.5	10	8	8	12	w.	J. M. Reed.
Cuba	Jackson	544	9	39.6	.....	73	14	6	23	35	2.12	− 0.81	0.70	3.5	9	3	17	8	nw.	C. T. Perry.
Elkhorn	McDowell	1,933	19	42.2	+ 7.1	67	1	14	22	35	2.30	− 0.85	0.51	T.	9	6	11	11	sw.	J. J. Lincoln.
Elkins	Randolph	1,940	11	36.8	+ 5.5	66	14	13	11	36	2.18	− 0.99	0.42	12.2	14	3	9	16	w.	U. S. Weather Bureau.
Fairmont	Marion	879	18	38.9	.....	71	14	6	11	41	1.91	− 1.17	0.54	5.6	12	.....	.....	.....	.....	H. Glenn Fleming.
Glenville	Gilmer	738	22	41.2	+ 9.9	72	14	16	11	31	1.83	− 2.14	0.63	2.5	7	7	8	13	.....	John Holt.
Grafton	Taylor	985	18	40.2	+ 9.8	70	14	14	11	36	2.58	− 0.63	0.61	7.5	10	11	8	9	.....	John W. Snider.
Green Sulphur Springs	Summers	1,600	16	39.2	+ 7.7	69	17	16	22†	36	1.86	− 0.70	0.55	0.4	8	7	9	12	w.	Arthur George.
Hinton	....do	1,400	21	40.6	+ 6.6	71	13†	16	22	43	2.52	− 0.65	0.72	0.5	10	7	7	14	sw.	J. B. Lavender, C. E.
Huntington	Cabell	510	17	40.0	+ 8.4	72	14	19	21†	37	3.92	+ 0.73	1.38	0.6	9	8	3	17	w.	L. H. Hutchinson
Lewisburg	Greenbrier	2,200	11	38.8	+ 8.2	68	15	13	22	36	2.05	− 0.98	0.46	1.0	7	18	5	5	nw.	Geo. T. Argabrite.
Logan	Logan	665	10	46.3	+ 6.7	76	17	19	22	41	3.11	− 1.21	0.96	T.	8	6	19	3	w.	H. C. Ragland.
Lost Creek	Harrison	1,033	15	37.8	+ 7.4	70	14	11	11	36	1.09	− 2.20	0.29	4.8	9	4	6	18	w.	Allen Smith.
Madison	Boone	704	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. E. Bradley.
Mannington	Marion	967	9	34.2	.....	68	14	8	22	47	2.24	.....	0.63	2.6	11	11	13	4	w.	Jas. A. Morgan.
Marlinton	Pocahontas	2,169	17	34.0	+ 5.1	60	17	11	22	28	2.23	− 1.36	0.72	3.5	7	16	3	9	.....	C. J. McCarty.
Morgantown	Monongahela	1,250	36	38.4	+ 7.9	67	14	16	22	35	1.37	− 2.00	0.49	T.	6	8	7	13	s.	Horace Atwood.
Moundsville	Marshall	640	10	38.8	+ 6.9	68	14	16	11	30	1.40	− 1.00	0.32	4.0	7	8	2	18	nw.	M. L. Brown.
New Cumberland	Hancock	987	14	35.2	+ 8.4	62	14†	11	21	30	1.62	− 1.19	0.40	9.0	6	5	2	21	n.	Frank S. Evans.
New Martinsville	Wetzel	634	18	40.4	+ 8.8	69	14	18	11†	29	2.01	− 1.17	0.60	.....	6	8	12	8	sw.	Wm. Ankron.
Nuttallburg	Fayette	2,252	18	38.6	+ 6.9	66	17	12	22	38	0.50	− 2.54	0.30	T.	3	17	3	7	.....	Miss Donna Tully.
Parkersburg	Wood	638	23	39.2	+ 5.4	72	14	18	21	28	1.65	− 1.59	0.50	6.4	11	6	7	15	nw.	U. S. Weather Bureau.
Parsons	Tucker	1,662	12	36.6	+ 8.1	65	14	10	11	38	2.45	− 1.00	0.50	8.0	8	7	11	10	.....	J. W. Swisher.
Philippi	Barbour	1,192	18	39.5	+ 8.8	71	14	14	11	37	2.15	− 1.30	0.55	6.0	16	9	10	9	w.	J. D. Dadisman.
Pickens	Randolph	2,785	20	36.7	+ 4.7	65	1†	9	22	39	2.73	− 1.99	0.50	18.0	10	9	5	14	w.	Dr. J. L. Cunningham.
Pineville	Wyoming	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. V. Senter.
Point Pleasant	Mason	553	21	41.2	+ 8.3	74	14	18	21†	34	3.21	− 0.49	1.28	2.0	11	6	1	21	se.	W. D. Holmes.
Powellton	Fayette	904	15	41.6	+ 7.2	72	17	21	21†	37[a]	1.79	− 1.36	0.83	1.1	8	13	8	7	.....	Morris Hansford.
Princeton	Mercer	2,469	10	36.2	+ 4.0	61	17	11	22	34	2.90	− 1.58	0.61	2.0	9	7	12	9	w.	H. Scott.
Robertsburg	Putnam	574	2	39.2	.....	73	14	16	23	41	3.24	.....	1.12	1.0	9	4	3	21	s.	E. P. Turley.
Ryan	Roane	.....	8	39.7	.....	73	14	10	23	42	2.23	.....	0.75	2.9	13	5	12	11	.....	Wm. E. Ryan.
Smithfield	Wetzel	919	8	35.4	.....	66	17	16	22	40	1.25	.....	0.37	5.5	7	13	6	9	nw.	G. M. Whisler.
Spencer	Roane	710	13	40.1	.....	70	1†	11	23	42	2.51	− 0.63	0.49	4.0	10	0	20	8	.....	A. M. McKowen.
Sutton	Braxton	839	9	42.2	.....	72	13†	18	10†	45	1.03	.....	0.40[c]	7.0	5	14	6	8	.....	J. E. Baughman.
Terra Alta	Preston	3,207	12	32.5	+ 7.0	60	14	9	22	27	2.46	− 1.47	0.68	12.0	8	8	6	14	w.	C. F. Dodge.
Union	Monroe	.....	7	36.8	.....	64	2†	12	22	34	1.43	.....	0.48	.....	4	.....	.....	.....	.....	Shelton Clark.
Valley Fork	Clay	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss Blanche Pierson.
Webester Springs	Webster	1,500	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	D. H. Hamrick.
Wellsburg	Brooke	1,225	12	34.8	+ 8.4	61	14	14	22	27	1.99	− 1.34	0.40	11.0	9	3	13	12	w.	C. P. Waugh.
Weston	Lewis	824	21	39.0	+ 7.8	68	14	12	11	42[b]	1.82	− 2.06	0.48	8.2	12	5[a]	8[a]	14[a]	sw.	Miss C. M. Davis.
Wheeling	Ohio	645	26	36.5	.....	68	14	17	11†	35	1.77	− 0.83	0.47	7.8	15	7	7	14	nw.	Miss M. B. Forsyth.
Williamson	Mingo	660	11	45.0	+ 8.7	75	14	20	22	35	2.97	− 0.37	0.98	0.5	10	8	12	8	w.	J. F. Keyser.
Ohio.																				
Amesville	Athens	630	7	39.1	.....	71	14	14	22	31	1.95	.....	0.51	5.1	8	5	12	11	nw.	F. W. Gibson.
Bangorville	Richland	1,380	24	32.7	+ 7.9	62	17	11	21†	31	2.14	− 1.00	0.70	7.7	9	6	7	15	nw.	S. M. Painter.
Bellefontaine	Logan	1,276	32	33.0	+ 8.5	63	17	3	21	30	1.55	− 0.94	0.42	4.0	9	7	10	11	w.	Cory L. Lane.
Bladensburg	Knox	1,100	20	33.2	+ 8.0	65	17	8	1	30	1.89	− 0.45	0.75	11.0	5	7	8	13	sw.	Miss Mary Elliott.
Cadiz	Harrison	1,245	8	34.8	.....	63	14	12	22	28	2.16	.....	0.68	9.5	9	5	7	16	w.	Harry B. McConnell.
Cambridge	Guernsey	803	19	37.6	+10.8	66	14	14	11†	31	1.49	− 0.95	0.33	5.0	6	5	15	8	.....	Samuel Mehaffey.
Camp Dennison	Hamilton	570	18	39.2	+ 9.7	69	17	16	21†	35	1.53	− 1.07	0.48	4.3	10	11	7	10	sw.	Henry F. Pinkvoss.
Canal Dover	Tuscarawas	884	18	34.9	+ 9.7	63	17	12	1†	30	2.04	− 0.57	0.53	9.5	8	6	16	6	sw.	Ed. S. Slingluff.
Canton	Stark	1,089	28	35.7	+ 8.8	63	17	15	21	28	2.53	− 0.45	0.75	10.5	10	5	9	14	w.	Carl H. Meyer.
Cardington	Morrow	1,010	16	34.2	+ 9.8	64	14†	9	21	26[a]	1.56	− 0.72	0.40	9.3	7	5	2	21	sw.	J. W. Shaw.
Chillicothe	Ross	630	8	.....	.....	.....	.....	.....	.....	.....	1.72	.....	0.85	.....	6	.....	.....	.....	.....	Owen L. Brown.
Cincinnati	Hamilton	628	40	39.9	+ 5.5	70	17	17	22	30	1.80	− 1.44	0.86	3.1	11	5	8	15	nw.	U. S. Weather Bureau.
Circleville	Pickaway	694	23	36.2	+ 8.1	68	17	14	21	38	1.90	− 0.77	0.74	10.7	9	7	5	16	nw.	Hon. S. W. Courtright.
Clarington	Monroe	600	8	37.8	.....	68	14	13	22	30	2.17	.....	0.55	6.0	13	2	10	16	sw.	Col. S. Tschappatt.
Columbus	Franklin	918	33	35.4	+ 4.4	67	17	16	21	27	1.71	− 1.36	0.65	9.4	10	5	11	12	nw.	U. S. Weather Bureau.

TABLE 1.—*Climatological data for February, 1911. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Ohio—Continued.																				
Coshocton	Coshocton	770	2								2.13		0.60		11					Mrs. Ada Jeffries.
Dayton	Montgomery	790	30	36.8	+ 6.8	70	17	12	21	27a	1.57	− 1.19	0.50	6.4	8	4	14	10	sw.	Mrs. Edith L. Boyer.
Delaware	Delaware	927	14	34.4	+ 9.1	68	17	8	21	26	1.55	− 0.48	0.39	5.6	8	5	8	15	sw.	Prof. L. L. Hudson.
Demos	Belmont	1,325	23	35.8	+ 7.6	62	14†	12	22	33	1.85	− 1.00	0.42	4.9	12	4	12	12	sw.	J. T. Dysart.
Dennison §	Tuscarawas	846	1	37.2		65	14†	12	22	36	2.06		0.49	7.8	8	6	15	7	s.	Water Supply Co.
Frankfort	Ross	750	19	38.6	+ 9.5	70	14	14	21	32	1.50	− 1.29	0.60	5.5	5	10	3	15	w.	O. A. Cory.
Garrettsville	Portage	1,005	27	31.5	+ 7.5	61	17	− 2	21	34	2.29	− 0.72	0.56	8.0	12	6	5	17	w.	S. M. Luther.
Granville	Licking	960	29	35.4	+ 7.8	65	14†	13	21†	27	1.73	− 1.27	0.60	8.3	8	5	6	17	w.	Dr. L. E. Davis.
Gratiot §	do	1,000	22	36.0	+ 7.7	65	17	11	22	36	2.01	− 1.07	0.60	5.5	9	2	12	14	w.	W. B. Longstreth.
Green	Adams	500	18	40.4	+ 9.2	72	14	18	22	42	2.69	− 0.68	1.20	5.0	5	11	9	8	e.	W. F. Kenyon.
Green Hill	Columbiana	1,135	18	32.1	+ 8.6	62	17	3	21	33	2.34	+ 0.02	0.81	10.3	8	6	8	14	sw.	Jos. E. Bentley.
Greenville	Darke	1,060	25	34.7	+ 7.2	68	17	13	10†	25	1.50	− 1.10	0.38	4.0	7	4	13	11	w.	G. A. Katzenberger.
Hillsboro	Highland	1,063	32	37.6	+ 8.8	67	14	12	21	28	2.64	− 0.04	0.81	7.3	8	5	9	14	sw.	Carey H. Roush.
Ironton	Lawrence	575	28	42.5	+ 8.8	76	14	16	23	38	3.65	+ 0.01	1.40		10	8	11	9	sw.	James Bull.
Jacksonburg	Butler	975	43	36.0	+ 6.7	68	17	10	21	28	1.55	− 1.70	0.52	6.0	5	11	10	7	sw.	Dr. J. B. Owsley.
Kenton	Hardin	1,015	19	32.1	+ 4.7	64	17	4	21	30	1.26	− 1.72	0.69	3.0	4	6	6	16	w.	N. S. Martin.
Killbuck	Holmes	1,087	19	34.4	+ 9.4	65	17	12	1†	30	1.91	− 0.56	0.80	8.4	9	4	16	8	se.	Lloyd C. Schonauer.
Lancaster	Fairfield	898	16	37.8	+ 9.6	68	14†	16	22	28	1.60	− 1.07	0.50	5.0	8	6	5	17	sw.	R. L. Renshaw.
McConnelsville	Morgan	710	27	37.8	+ 7.5	69	14	15	22	30	1.72	− 1.28	0.49	3.5	9	4	8	16	s.	C. H. Morris.
Marietta	Washington	627	91	39.6	+ 5.8	70	14	16	22	28	2.15	− 1.03	0.51	3.6	9	4	8	16	sw.	Prof. T. D. Biscoe.
Marion	Marion	980	33	34.8	+ 8.7	65	17†	11	21	32	2.09	− 0.24	0.84	12.0	6	5	9	14	sw.	Dr. E. H. Raffensperger.
Milfordton	Knox	1,200	19	33.6	+ 9.8	64	17	6	23	28	1.63	− 0.67	0.52	10.0	4	7	4	17	sw.	L. H. Burgess.
Milligans §	Perry	875	18	36.7	+ 9.1	68	14	12	22	30	1.77	− 0.84	0.44	4.0	7	6	13	9	sw.	V. C. Eveland.
Millport	Columbiana	1,145	18	32.5	+ 8.3	61	17†	5	11	33	2.18	− 0.26	0.60	10.0	9	3	8	17	nw.	G. F. Copeland.
Neille	Coshocton	850	11	35.4	+ 9.1	66	17	10	22	29a	1.65	− 0.55	0.70	7.5	3	10	14	4	w.	Miss Ethel L. Gamertsfelder.
New Alexandria	Jefferson	1,050	26	36.4	+ 7.7	63	14	11	21	31	1.90	− 1.56	0.80	14.0	4	6	8	14	n.	Mrs. Mary K. Pennell.
New Berlin	Stark	1,100	18	31.4	+ 7.5	61	17	8	11†	34	2.89	+ 1.08	0.75	10.0	8	6	1	21	w.	Clayton Holl.
New Waterford	Columbiana	1,053	16	32.3	+ 8.5	60	17†	− 1	21	32						10	4	14	sw.	Sam. C. Scott.
Ohio State University	Franklin	757	28	35.6	+ 7.3	67	17	11	21	28	1.36	− 1.59	0.38	6.7	8	3	10	15	nw.	Prof. H. C. Lord.
Pataskala	Licking	1,015	19	35.1	+ 8.8	65	17	12	21†	28	1.47	− 1.30	0.42	7.2	10	1	15	12	w.	J. N. Ridenour.
Peebles	Adams	645	1	36.4		72	14	5	21	39	2.43		1.50	3.0	7	12	6	10	nw.	Ora O. Smalley.
Philo (1)	Muskingum	1,018	16	36.6	+ 7.8	66	17	14	22	26	1.13	− 1.09	0.33	5.1	7	5	8	15	nw.	L. C. Burckholter.
Piqua	Miami	847	1								1.67		0.35	6.5	8	12	5	11	sw.	Harry L. Roberts.
Plattsburg	Clarke	1,130	18	34.8	+ 8.8	66	17	12	21†	30	1.44	− 1.22	0.60	5.5	6	6	10	12	w.	F. E. Stewart.
Portsmouth	Scioto	527	80	39.8	+ 2.8	71	14	18	21†	33	3.14	− 0.05	1.26	2.0	10	8	1	19	w.	Dr. H. A. Schirrmann.
Prospect	Marion	909	1																	Neil J. Gast.
Rittman	Wayne	990	19	33.5	+ 9.7	61	17	7	22	28	2.72	+ 0.26	1.00	11.0	5	5	8	15	s.	J. B. Gish.
Shenandoah	Richland	1,100	19	31.2	+ 8.1	61	17	10	11	34	2.32	+ 0.22	0.62	12.0	9	1	16	11	sw.	T. B. Arnett.
Sidney	Shelby	985	28	35.2	+ 9.0	67	17	12	21	26	1.41	− 1.43	0.36	4.2	8	6	6	16	nw.	Hamline B. Blake.
Somerset	Perry	1,080	12	34.4	+ 6.4	66	17	13	22	39	1.43	− 0.34	0.60	9.0	6	7	6	15	s.	Miss M. W. C. Sheridan.
Springfield	Clarke	980	17								1.58	− 0.76	0.42		8	5	16	7	sw.	W. A. Webster.
Summerfield	Noble	1,187	5	37.0		66	14†	15	11†	32	1.71		0.40	4.8	8	3	14	11	sw.	H. R. McClintock.
Syracuse	Meigs	583	1	40.6		75	14	17	22†	32	2.09		0.95	3.0	7	6	8	14	w.	E. G. Campbell.
Thurman	Gallia	696	18	40.0	+ 8.8	74	14	15	21†	32	1.35	− 1.44	0.60	1.0	4	5	8	15		D. D. Thomas.
Urbana	Champaign	1,031	43	35.0	+ 9.9	67	17	7	21	32	1.40	− 0.90	0.70	9.5	5	3	13	12	sw.	Prof. J. H. Williams.
Warren	Trumbull	900	22	32.4	+ 7.2	62	17	10	21	28	2.80	− 0.23	0.73	13.7	10	5	4	19	sw.	M. D. McCorkle.
Waverly	Pike	590	28	39.8	+ 7.5	73	14	14	22	33	1.52	− 2.04	0.62	7.7	5	11	6	11	s.	Herrmann A. Lorbach.
Waynesville	Warren	700	26	36.0	+ 9.4	68	17	12	21	33	1.04	− 1.90	0.38		6	6	12	10	sw.	Charles Michener.
Wooster	Wayne	1,030	32	33.8	+ 8.0	62	17	9	11	40	2.25	− 0.64	0.60	11.0	7	1	7	20	sw.	Experiment Station.
Youngstown	Mahoning	846	18								3.76	+ 0.82	0.80	19.0	12	15	0	13	w.	G. R. Patton.
Zanesville	Muskingum	700	24								1.64	− 0.94	0.40	5.2	11	5	0	23	w.	S. G. Sprague.
Virginia.																				
Big Stone Gap	Wise	1,540	20	44.6	+ 9.2	73	3	15	22	37	4.69	+ 0.15	2.20	T.	8	10	1	17	w.	John W. Fox, sr.
Blacksburg	Montgomery	2,170	20	38.7	+ 6.8	68	2	14	22	42	1.84	− 1.36	0.65	0.4	8	7	10	11	w.	Agr. Experiment Station.
Burkes Garden	Tazewell	3,250	16	38.0	+ 8.4	62	2	7	22	33	2.88	− 0.82	1.35	2.0	5	9	3	16	w.	C. H. Greever.
Elk Knob	Lee	3,243	8	42.5		66	1†	12	22		4.12		1.99	T.	11	8	6	14	sw.	Henry Nicoll.
Galax	Grayson	2,300	1	40.4		68	17	15	22	39	1.16		0.80	T.	3	9	6	13	nw.	E. C. Williams.
Ivanhoe	Wythe	2,028	7	38.8		62	2†	16	22	28	1.74		0.43	1.0	9	10	13	5	w.	Miss Alice G. Jewett.
Lebanon	Russell	2,181	1	43.0		70	2	12	22	39	3.22		1.66	T.	7	12	4	12	sw.	R. W. Swain.
Marion	Smyth	2,224	16	42.4	+ 6.8	68	2†	13	22	38	3.23	− 0.21	1.03	T.	10	6	13	9	sw.	Southwestern State Hospital.
Max Meadows	Wythe	2,028	15	40.0	+ 8.2	66	2	16	22	31	1.65	− 1.23	0.77	T.	3	12	9	7	w.	James M. Graham.
Mendota	Washington	1,350	2								3.76		1,14	T.	12					Frank M. Barker.
Speers Ferry	Scott	1,221	15								3.99	+ 0.77	1.56	T.	8					Mrs. L. E. Venable.
Wytheville	Wythe	2,293	18	39.5	+ 4.4	66	2	14	22	31	2.04	− 2.05	0.78	0.7	8	9	6	13	w.	U. S. Weather Bureau.
North Carolina.																				
Altapass§	Mitchell	2,629									2.16		0.45	2.0	8	15	3	10	se.	C. C. & O. Ry.
Andrews	Cherokee	1,800	1	48.1		80	2	16	22	45	5.65		2.35	3.0	11	13	10	5	sw.	J. D. Link.
Asheville	Buncombe	2,250	32	43.8	+ 5.3	69	18	14	22	33	2.19	− 2.46	0.73	T.	8	8	10	10	nw.	U. S. Weather Bureau.
Banners Elk	Watauga	3,750	3	38.6		65	16	8	22	38	2.64		0.93	0.0	6	13	5	10	w.	T. L. Lowe.
Brevard	Transylvania	2,230	10	46.0	+ 7.9	74	2†	13	22	44	2.48	− 2.77	1.00	1.5	5	16	11	1	s.	W. E. Breese.
Bryson City	Swain	2,000	23								4.38	− 1.15	1.10	T.	9					D. K. Collins.
Cullowhee	Jackson	2,100	1	45.0		77	1	14	22†	41	2.63		1.28	1.5	8	15	2	11	nw.	F. H. Brown.
Eagle Nest	Haywood	5,050																		S. C. Satterthwait.
Hendersonville	Henderson	2,167	15	46.6	+ 9.1	74	18	15	22	34	3.06	− 2.97	0.87	1.0	7	18	1	9	nw.	Dr. L. B. Morse.
Highlands	Macon	3,670	21	41.8	+ 6.7	67	1†	8	22	34	4.58	− 3.91	1.55	5.0	7	16	4	8		T. G. Harbison.
Hot Springs	Madison	1,326	13	46.6	+ 4.8	78	1	19	24	45	3.19		1.03	1.0	8	9	12	7	w.	P. A. Garner.
Jefferson	Ashe	2,800	4	41.8		67	15	12	22	34	2.02		0.84	5.0	5	5	5	18	w.	Prof. E. J. Johnson.
Marshall	Madison	1,646	10																	Rev. W. E. Finley.
Murphy	Cherokee	1,614	35								3.20	− 2.94	1.40	2.0	5					Miss Julia A. Campbell.
Rock House	Macon	3,100	19																	B. C. Hawkins.
Waynesville	Haywood	2,756	17	44.2	+ 7.6	73	1	9	22	47	3.20	− 1.20	0.80	1.2	14	10	6	12	sw.	Judge J. C. L. Gudger.
Georgia.																				
Diamond	Gilmer	2,020	21	47.7	+ 6.9	73	15	13	22	34	4.66	− 2.99	0.84	1.5	9	10	4	14		R. A. Kimzey.
Lafayette	Walker	871	4	48.8		73	15†	19	22	38	5.60		1.32	0.5	9	15	3	10	nw.	Ralph A. Snow.
Alabama.																				
Bridgeport	Jackson	660	11								5.16	− 0.29	1.50	0.0	10				e.	R. L. Moore.
Decatur	Morgan	573	29	49.8	+ 7.7	75	1	19	22	40	5.05	− 0.11	1.28	T.	14	6	2	20	n.	Ernest A. Carringer.
Florence	Lauderdale	563	27								5.34	+ 0.23	1.60	T.	11	11	0	17	e.	Robt. E. Coburn.
Guntersville	Marshall	580	1	49.8		76	18	20	22	40	5.01		1.58	T.	10	7	1	20	e.	L. S. Long.
Madison	Madison	573	17	49.9	+ 8.0	78	15	16	22	37	5.19	+ 0.14	1.36	0.0	10	11	9	8	nw.	Albert Klish.
Riverton	Colbert	360	14	47.4	+ 8.1	79	15†	15	22	43	4.85	− 0.02	1.35	0.0	9	9	3	16	e.	Ernie J. Moore.
Scottsboro	Jackson	652	28	50.3	+ 9.1	75	15	19	22	36	5.18	− 0.39	1.18	T.	11	7	5	16	w.	H. A. Caldwell.
Tuscumbia	Colbert	488	29	49.6	+ 7.7	76	1	19	22†	38	5.23	+ 0.05	2.28	0.0	11	7	2	19	se.	Samuel Moore.
Tennessee.																				
Ashwood	Maury	725	32	48.2	+ 7.0	78	15	18	22	39	3.88	− 0.82	1.00	T.	9	9	6	13	s.	Mrs. J. W. Fleming.
Benton	Polk	880	26	49.0	+ 6.7	75	18	18	22	42	5.17	+ 0.29	2.43	T.	10	8	12	8	n.	G. L. Williams.
Bird's Bridge	Greene		5								3.01		0.93	0.0	8	6	0	22	w.	D. B. George.

TABLE 1.—*Climatological data for February, 1911. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Tennessee—Continued.																				
Bluff City	Sullivan		14								3.20	− 0.27	0.94	T.	8	6	4	18		J. W. Fisher.
Byrdstown	Pickett	1,026	18	45.9	+ 8.3	75	1	16	22	34	3.42	− 1.10	1.10	T.	8	6	7	15	w.	John Lacy.
Carthage	Smith	500	27	47.8	+ 7.5	82	14	18	22	37	4.52	− 0.11	1.80	0.0	7	10	2	16	sw.	E. C. Pickering.
Cedar Hill	Robertson	625	11	45.5	+ 8.6	79	16	15	22	35	3.65	− 0.51	1.50	T.	8	12	7	9	n.	J. F. Ruffin.
Celina	Clay	494	8								4.55		1.55	0.0	7	10	2	16	n.	S. B. Anderson.
Center Point	Chester		14								3.63	− 0.13	0.85	1.8	7	10	3	15	s.	H. H. Bailey.
Charleston	Bradley		14								4.17	− 1.18	1.30	0.0	12	7	4	17	s.	J. T. Weeks.
Chattanooga	Hamilton	808	32	49.2	+ 5.5	75	18	20	22	31	4.41	− 0.53	1.35	5.1	17	5	8	15	s.	U. S. Weather Bureau.
Clarksville	Montgomery	520	48	46.4	+ 6.1	79	16	17	22	35	2.72	− 1.57	1.22	T.	10	13	5	10	n.	Prof. James A. Lyon.
Clinton	Anderson		23								5.38	− 0.20	1.65	T.	11	8	0	20	sw.	John Thompson.
Dandridge	Jefferson		7								3.92		1.20	0.0	8	8	2	18	w.	J. E. Swann.
Decatur	Meigs	850	15	47.2	+ 7.6	75	2	16	22	42	4.24	− 1.45	1.33	T.	14	9	10	9	sw.	J. W. Lillard.
Dickson	Dickson	800	15	46.9	+ 8.8	78	15†	14	22	37	3.79	− 0.69	1.06	0.0	10	11	5	13	n.	N. R. Sugg.
Dover	Stewart		16	45.6	+ 7.2	84	17	17	22	42	3.55	− 0.25	1.33	T.	5	11	5	12	s.	A. M. Tippit.
Dunlap	Sequatchee	726	2	48.8		77	15	19	22	35	4.25		1.45	T.	9	6	12	10		S. B. Boyd.
Elizabethton	Carter	1,575	21								4.07	+ 0.73	1.39	0.0	8	10	0	18	e.	Chas. Boyd.
Erasmus	Cumberland	1,850	14	43.4	+ 7.5	74	15	11	24	46	4.64	− 0.38	1.56	0.1	11	12	6	10	se.	Mrs. E. D. Ashley.
Florence	Rutherford	560	29	47.4	+ 6.8	71	14†	18	22	35	5.91	+ 1.21	2.40	T.	11	12	7	9	s.	Erastus P. Bell.
Franklin	Williamson	655	21	46.0	+ 6.6	75	18	18	22	37	5.67	+ 1.20	1.91	T.	7	9	2	17		F. J. Hyde.
Halls Hill	Rutherford		9								4.37		1.75	T.	8	11	2	15	n.	Ed. F. Wright.
Harriman	Roane	841	16	47.4	+ 9.4	76	16	18	22	37	4.62	− 0.13	1.90	T.	6	5	15	8		Robert R. Ayers.
Hohenwald	Lewis	983	25	48.0	+ 8.6	79	16	15	22	39	5.11	+ 0.02	1.84	T.	9	8	12	8	n.	John Lutzelman.
Iron City	Lawrence		14	49.4	+ 9.1	79	17	14	22	41	5.69	+ 0.73	1.86	T.	11	2	20	6	sw.	Capt. H. P. Seavy.
Jefferson City	Jefferson										4.31		2.15	T.	9					C. Calvin Maddox.
Johnson Ci y	Washington	1,740	16	43.6	+ 5.6	72	1	18	21†	34	3.14	− 0.46	0.69	2.0	10	11	5	12	w.	Ward Crosby.
Johnsonville	Humphreys	364	15	47.8	+ 8.9	79	17	17	22	41	2.76	− 1.62	0.78	T.	11	10	2	16	s.	Miss Sallie B. Matthews.
Kingston	Roane		20								4.13	− 1.36	1.00	0.0	10	7	0	21	n.	H. Crumbliss.
Knoxville	Knox	977	40	47.2	+ 6.4	70	2	19	22	34	4.83	− 0.07	2.26	T.	14	6	10	12	sw.	U. S. Weather Bureau.
Lebanon	Wilson	522	2	48.2		76	14†	16	22	35	4.59		1.85	T.	10	9	6	13	n.	Logan Fields.
Lewisburg	Marshall	727	16	48.0	+ 7.7	78	15	17	22	39	5.45	+ 0.59	1.63	0.5	12	8	9	11	s.	Dr. R. D. Crutcher.
Livingston	Overton			47.2		77	1	16	22	43	3.53		1.34	T.	7	18	0	10	n.	Livingston Academy.
Loudon	Loudon	816	8								4.18		1.14	T.	9	8	4	16	w.	Robert W. Clark.
Lynnville	Giles	770	23	49.3	+ 9.1	74	18†	19	22	33	6.09	+ 0.76	2.05	T.	11	4	15	9	n.	Col. J. H. Burrow.
McGhee	Monroe		7								4.35		1.20	T.	9	7	0	21	e.	Alice L. Hendrick.
McMinnville	Warren	1,011	27	48.2	+ 7.0	75	15†	15	22	42	3.60	− 0.51	1.29	0.9	11	7	12	9	n.	J. T. Sparkman.
Maryville	Blount	1,050	15	50.0	+10.1	73	1	20	22	33	4.24	− 0.66	1.85	T.	7	9	12	7	w.	Mrs. F. E. Benedict
Mountain City	Johnson	2,486	14	42.0	+ 9.0	71	16	13	22	43	2.64	− 1.28	1.21	T.	5	10	3	15		E. E. Barry.
Nashville	Davidson	654	40	46.6	+ 5.6	74	15	17	22	31	4.68	+ 0.36	1.60	T.	11	8	10	10	nw.	U. S. Weather Bureau.
Newport	Cocke	1,280	21	46.3	+ 6.6	71	18	20	22	32	3.69	− 0.43	1.10	0.0	9	9	1	18	w.	Dr. C. T. Burnett.
New River	Scott	1,215	4								3.99		1.20	0.1	6	8	3	17	s.	Burl W. Buttram.
Palmetto	Bedford	770	18	48.0	+ 8.1	76	15	16	22	35	4.31	− 0.12	1.25	T.	12	8	9	11	nw.	Mrs. Ross Woods.
Pinewood	Hickman		4	47.9		81	15	12	22	47	4.50		1.08	T.	11	8	10	10	n.	Miss Carrie Cash.
Pope	Perry		14	49.4	+10.2	81	15	14	22	48	3.64	− 0.32	1.04	0.0	7	14	2	12	s.	Miss Bessie Howard.
Rogersville	Hawkins	1,150	26	45.4	+ 6.8	72	1	19	22	44	3.66	− 0.75	1.14	T.	12	10	6	12	w.	Fred Beal.
Rugby	Morgan	1,410	23	44.0	+ 7.2	74	15	12	22	44	4.35	− 0.92	1.48	T.	9	8	7	13	n.	S. G. Wilson.
Savannah	Hardin	442	27	50.4	+ 8.5	76	15†	22	24	43	4.63	+ 0.34	1.45	T.						W. F. Bell.
Sevierville	Sevier		5	46.0		71	1†	18	22	38	4.22		1.82	T.	10	1	6	21	sw.	H. O. Eckel.
Sewanee	Franklin	2,000	15	48.0	+ 9.8	71	16	11	23	36	4.26	− 1.09	1.30	1.5	7	11	1	16	s.	A. H. Noll.
Sparta	White	920	5	47.1		78	1	16	22	42	3.26		1.83	T.	6	9	10	9	w.	E. H. Hull.
Springdale	Claiborne	1,058	20	46.0	+ 7.2	70	23	11	22	29	3.01	− 2.02	1.20	T.	7	8	8	12	w.	Mrs. Lucy E Breeding.
Springville	Henry	377	8	45.6		78	16	16	22	40	3.02		0.98	T.	9	14	5	9	n.	H. A. Boden
Tazewell	Claiborne		14								3.77	− 0.45	1.10	T.	7	9	3	16	sw.	J. C. Carr.
Tullahoma	Coffee	1,075	23	48.0	+ 8.3	73	15	15	22	39	5.06	+ 0.43	1.77	T.	12	6	14	8	w.	R. T. Moore.
Walling	White	909	8								5.69		2.20	0.0	9	9	3	16		J. K. Roberts.
Waynesboro	Wayne	753	25	48.4	+ 7.7	77	15	15	22	40	5.22	+ 0.54	1.47	1.0	13	5	15	8	s.	H. C. Boyd.
Wildersville	Henderson		13	46.0[d]	+ 8.8	81	15	18	22	39[d]	3.64	− 0.19	0.82	0.0	8	13	5	10	n.	W. B. Wilson.
Worsham	Sumner		10								2.85		0.82	T.	8	7	5	16	w.	J. G. Elizer.
Yukon	Lincoln	850	14	47.1	+ 7.0	71	18	15	21	33	4.56	− 0.29	1.77	0.5	9	7	12	9	sw.	W. P. Watson.
Kentucky.																				
Alpha	Clinton		17	46.6	+ 9.0	74	1	18	23	31	5.17	+ 1.06	1.53	T.	6	13	4	11	w.	W. W. Hicks.
Anchorage	Jefferson	700	10	39.3	+ 7.1	72	16†	16	22	36	2.00	− 1.23	0.62	0.5	7	11	7	10	sw.	C. E. Barrett.
Bardstown§§	Nelson	637	14	42.8	+ 8.3	74	15†	17	22	41	4.71	+ 0.55	2.10		9	10	0	18	sw.	G. M. Talbott.
Beattyville§§	Lee	650	7	41.1		75	14†	14	22	46	4.56		1.58	1.0	11	9	3	16	nw.	G. W. Cann.
Beaver Dam§§	Ohio	441	8	42.2		78	16	18	22	42	2.14		1.00	T.	5	8	0	20	nw.	T. S. Woodward.
Berea	Madison	1,070	10	42.6	+ 7.7	73	14	15	22	36	2.06	− 1.49	1.12	0.4	8	14	4	10	ne.	C. F. Rumold.
Bowling Green§§	Warren	500	22	43.6	+ 6.4	77	16	16	22	44	3.41	− 0.74	0.93		8	9	2	17	s.	Mrs. L. G. Causey.
Burnside	Pulaski	773	20								4.42	− 0.02	1.64	T.	8	9	2	17		G. M. Estes.
Cadiz	Trigg		7																	F. T. Street.
Calhoun	McLean	397	8	44.2		79	16	18	22	37	2.60		1.19	T.	10	10	8	10	n.	W. A. Taylor.
Catlettsburg	Boyd	544	22								3.90	+ 0.33	1.40	T.	10	11	2	15	w.	Mrs. Mertie M. Bruns.
Earlington§§	Hopkins	370	21	42.2	+ 5.8	79	15†	18	22	43	2.64	− 1.36	1.00		7	15	1	12	n.	J. B. Atkinson.
Edmonton	Metcalf	600	20	43.8	+ 7.4	74	1†	16	22	37	5.07	+ 0.66	1.55	T.	10	10	7	11	w.	Miss Lee Ray.
Eubank§§	Pulaski	1,177	17	41.8	+ 8.8	72	1	14	22	42	3.81	− 0.57	1.35	T.	7	9	2	17	sw.	Mrs. Katie Payne.
Falmouth	Pendleton	530	22								2.60	− 0.64	0.80	1.0	10	6	7	15	sw.	J. V. Oldham.
Farmers	Rowan	668	5	41.4		75	16	15	23	49	3.52		1.36		5	12	1	15	w.	Miss Gertrude Sorrel.
Frankfort	Franklin	560	20	40.0	+ 5.4	71	1	19	20†	32	1.90	− 1.69	0.61	T.	10	11	2	15	s.	J. H. Roberts.
Franklin	Simpson	691	17	45.3	+ 6.7	76	15	16	22	36	4.61	− 0.57	1.77	T.	5	7	13	8	nw.	J. E. Newman.
Greensburg§§	Green	581	19	41.8	+ 8.5	76	1	15	22†	47	4.08	− 0.05	1.57	T.	8	11	0	17	n.	L. C. Alcorn.
High Bridge	Jessamine	762	8								3.35		1.51	0.5	10	9	3	16		Miss Lulu Wood.
Hopkinsville	Christian	524	15	44.9	+ 8.1	80	16	17	22	35	3.65	− 0.50	1.20	T.	9	12	2	14	w.	W. F. Randle.
Irvington	Breckenridge		13	42.2	+ 9.9	72	16	17	22	32	2.79	+ 0.42	1.20	T.	7	12	4	12	s.	W. J. Piggott.
Leitchfield	Grayson	635	15	42.6	+ 9.3	73	16	16	22	33	3.08	− 0.90	1.74	T.	5	10	7	11	nw.	John E. Stone.
Lexington	Fayette	989	23	40.4	+ 4.8	70	14	16	22	31	2.21	− 1.02	0.83	0.1	10	7	9	12	w.	U. S. Weather Bureau.
Loretto	Marion	681	14	42.2	+ 9.7	72	1†	11	22	41	1.65	− 1.27	0.68	T.	5	21	2	5		Loretto Academy.
Louisville	Jefferson	525	39	42.2	+ 5.6	72	17	20	22	33	2.80	− 0.95	1.03	4.1	9	9	7	12	w.	U. S. Weather Bureau.
Marion	Crittenden		16	42.7	+ 7.3	77	16	17	21†	34	2.74	− 0.66	1.48	T.	3	12	3	13	n.	B. C. Paris.
Maysville§§	Mason	524	14	40.6	+ 7.4	74	14	15	22	42	2.63	− 0.06	1.26	1.6	9	15	5	8	nw.	Mrs. Mary D. Marsh.
Middlesboro	Bell	1,128	16	45.0	+ 6.0	71	15	17	22	42	4.27	− 1.06	1.70	T.	11	12	12	4		B. H. Perkins.
Mount Sterling§§	Montgomery	930	21	38.5	+ 5.2	70	14	12	22	33	3.64	− 0.63	0.89	T.	7	9	9	10	w.	James O'Connell.
Owensboro§§	Daviess	479	15	41.0	+ 6.9	76	16	19	22	37	2.30	− 0.48	0.80	T.	8	9	2	17	nw.	Henry S. Berry.
Owenton	Owen	700	15	40.3	+ 9.3	69	18	14	21	33	3.09	− 1.10	1.40	0.2	6	4	22	2		J. T. Walker.
Paducah	McCracken	341	22								3.00	− 0.46	1.40	1.0	4	14	0	14	n.	S. A. Fowler.
Paintsville	Johnson		0			75	14	19	21											R. L. Atkinson.
Pikeville	Pike		3								4.20		1.00	0.5	10	12	0	16	n.	I. M. Williams.
Richmond§§	Madison	926	19	42.4	+ 7.5	73	1†	16	22	33	3.90	+ 0.26	1.33		10	9	4	15		J. W. Crooke.
St. John§§	Hardin	777	15	41.0	+ 8.0	71	1	11	22	39	3.06	− 1.10	1.10	T.	13	12	1	15		Bethlehem Academy.
Scott	Kenton		13	39.2	+10.6	70	17	14	21†	30	2.08	0.00	0.89	1.5	7	8	7	13	w.	E. B. Wilson.

TABLE 1.—*Climatological data for February, 1911. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Kentucky—Continued.																				
Shelby City	Boyle	1,087	17	41.4	+ 9.0	78	14	12	22	40	3.74	+ 0.44	0.88	T.	11	11	4	13	s.	W. E. Grubbs.
Shelbyville§§	Shelby	759	22	41.1	+ 7.1	71	1	15	23	40	2.70	− 0.90	0.85	T.	7	7	8	13	sw.	C. R. Burnett.
Taylorsville	Spencer	489	9	42.0	.....	70	1†	15	21	33	2.84	.....	1.11	0.5	9	7	9	12	sw.	E. D. Bourne.
Williamsburg§§	Whitley	939	15	42.8	+ 5.5	73	14†	11	22	43	4.36	+ 0.80	1.53	T.	9	9	0	19	w.	Noble C. Jones.
Williamstown§§	Grant	943	9	37.5	.....	69	17	14	21†	40	1.76	.....	0.65	T.	6	7	4	17	.....	Mrs. Sarah E. Carter.
Indiana.																				
Anderson	Madison	892	16	36.0	+ 8.9	69	17	11	21†	30	1.13	− 1.07	0.35	2.7	7	12	3	13	sw.	W. H. Stanton.
Attica	Fountain	522	1	.....	.....	.....	.....	.....	.....	.....	1.80	.....	0.52	5.5	7	.....	.....	.....	.....	Robt. E. Ray.
Bloomington	Monroe	744	16	35.6	+ 6.1	70	17	13	21†	37	2.71	− 1.11	0.75	7.6	9	11	5	12	sw.	Earl E. Ramsey.
Bluffton	Wells	835	16	32.5	+ 7.7	65	17	9	21†	33	1.22	− 1.06	0.44	2.5	9	11	6	11	w.	Tom R. Johnston.
Butlerville	Jennings	767	26	38.4	+ 7.1	70	17	10	21	32	2.34	− 1.43	0.68	7.1	9	12	5	11	w.	C. F. Hole.
Cambridge City	Wayne	941	20	35.0	+ 8.9	69	17	7	21	35	1.39	− 1.37	0.45	4.0	8	9	12	7	nw.	Charles Lemberger.
Columbus	Bartholomew	632	28	37.2	+ 7.1	72	17	6	21	32	1.62	− 1.53	0.46	5.5	10	9	2	17	w.	John A. Perry
Connersville	Fayette	709	29	37.9	+ 8.9	70	17	10	21	36	1.19	− 2.00	0.40	2.4	5	7	13	8	sw.	H. T. Swindler.
Crawfordsville	Montgomery	780	1	35.9	.....	69	17	11	10	33	0.87	.....	0.50	3.2	5	8	5	15	w.	P. H. Burns.
Delphi	Carroll	668	26	33.3	+ 7.6	64	17	10	10†	38	1.71	− 0.73	0.47	6.0	7	4	7	17	.....	L. A. Higginbotham.
Eminence	Morgan	782	5	36.2	.....	70	17	10	21	36	1.29	.....	0.40	3.0	6	10[a]	5[a]	12[a]	nw.	E. E. Kelso, M. D.
Evansville	Vanderburg	386	35	41.3	+ 5.5	74	16	19	21	33	1.84	− 1.22	0.75	1.0	9	8	10	10	s.	U. S. Weather Bureau
Farmersburg	Sullivan	.....	13	38.0	+ 9.5	73	17	15	21†	36	1.57	− 1.02	0.45	4.0	5	10	13	5	n.	Maurice Yeager.
Farmland	Randolph	1,101	29	35.0	+ 6.7	67	17	12	21	26	1.42	− 1.48	0.60	3.5	6	7	3	18	nw.	W. J. Davisson.
Greenfield	Hancock	905	8	37.5	.....	68	17	12	21	33	1.01	.....	0.41	2.5	6	0	22	6	w.	Prof. W. C. Goble.
Greensburg	Decatur	954	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. H. Ewing.
Huntingburg	Dubois	462	3	.....	.....	.....	.....	.....	.....	.....	2.20	.....	.....	.....	.....	.....	.....	.....	.....	H. Dufendach.
Huntington	Huntington	741	18	32.9	+ 8.5	62	17	10	21†	29	1.68	− 0.82	0.68	7.8	6	11	2	15	nw.	Chas. McGrew.
Indianapolis	Marion	822	40	36.3	+ 5.6	69	17	13	10	30	1.28	− 1.80	0.40	3.0	10	8	5	15	nw.	U. S. Weather Bureau.
Jeffersonville	Clark	455	29	42.0	+ 7.2	72	17	19	21†	32	2.60	− 1.30	1.03	T.	9	9	8	11	w.	John C. Loomis.
Judyville	Warren	.....	4	33.2[a]	.....	65	17	6	10	34[a]	1.36	.....	0.40	4.3	7	11	4	13	nw.	Dale R. Warrick.
Kokomo	Howard	840	19	33.4	+ 7.9	64	17	7	21	32	1.36	− 0.72	0.45	5.0	5	5	9	14	nw.	P. H. Robertson.
Lafayette	Tippecanoe	617	32	33.4	+ 6.4	65	17	10	10	34	1.94	− 0.85	0.58	6.0	8	7	2	19	s.	Wm. J. Jones, jr.
Logansport	Cass	620	31	33.6	+ 7.3	63	17	9	21†	39	1.63	− 1.04	0.66	6.2	6	9	1	18	e.	Chas. Masenna.
Madison	Jefferson	460	19	40.6	+ 8.4	72	17	17	21	30	2.13	− 1.19	0.94	4.5	7	14	3	11	sw.	Dr. J. Cooperider.
Marengo	Crawford	363	29	39.5	+ 5.3	73	17	14	21	39	1.80	− 2.97	1.00	3.1	8	7	9	12	sw.	J. M. Johnson.
Marion	Grant	814	25	33.9	+ 7.1	67	17	8	10	29	1.55	− 0.93	0.43	5.8	8	7	7	14	nw.	James F. Hood.
Mauzy	Rush	980	31	35.4	+ 7.7	69	17	5	21	32	1.27	− 2.30	0.44	2.7	11	9	3	16	nw.	Elwood Kirkwood.
Monticello	White	674	1	.....	.....	.....	.....	.....	.....	.....	2.61	.....	0.48	8.6	8	9	7	12	.....	J. E. Loughry.
Moores Hill	Dearborn	980	10	37.2	.....	70	17	10	21	32	2.01	.....	0.80	4.7	8	11	2	15	nw.	W. S. Bigney.
Mount Vernon	Posey	410	25	40.3	+ 6.5	78	16	18	21	41	2.15	− 0.94	1.00	0.5	6	11	0	17	nw.	Silas G. Howard.
Paoli	Orange	611	14	40.2	+ 9.8	73	17	10	21	36	2.05	− 1.33	0.90	4.0	9	9	10	9	sw.	James A. Gillum.
Princeton	Gibson	481	29	41.0	+ 8.7	73	17	16	21	36	2.75	− 0.69	1.35	4.5	5	9	6	13	sw.	Albert Mills.
Richmond	Wayne	972	26	35.4	+ 7.1	68	17	4	21	31	1.34	− 1.29	0.33	2.6	10	4	12	12	.....	Walter Vossler.
Rochester	Fulton	775	6	33.1	.....	59	17	9	10	24	2.10	.....	0.65	7.0	7	6	6	16	.....	G. P. Keith.
Rockville	Parke	722	25	34.4	+ 5.6	66	1	12	10	34	1.07	− 1.42	0.44	1.0	5	12	1	15	nw.	Dr. W. N. Wirt.
Rome	Perry	370	8	43.2	.....	76	15	19	21†	36	3.00	.....	1.10	T.	10	11	7	10	w.	Adam Anspach.
Salamonia	Jay	.....	6	32.8[f]	.....	59[f]	14	10[f]	21	28[f]	1.12	.....	0.35	1.5	6	5[e]	3[e]	17[e]	nw.	Chas. V. Skinner.
Salem	Washington	717	18	39.4	+ 8.0	72	17	13	21	39	2.43	− 1.25	0.85	T.	6	8	11	9	ne.	Emmet S. Allen.
Scottsburg	Scott	570	17	41.0	+ 9.1	72	17	18	21†	29	2.50	− 0.63	0.91	2.5	5	8	8	12	w.	Frank H. Park.
Seymour	Jackson	610	24	40.0	+ 8.5	74	17	8	21	36	2.67	− 0.96	1.15	4.2	8	8	14	6	nw.	J. Robt. Blair.
Shelbyville	Shelby	768	7	37.0	.....	70	17	10	21	33	1.14	.....	0.40	1.5	8	5	12	11	nw.	Edgar G. Hodgson.
Shoals	Martin	523	4	.....	.....	.....	.....	.....	.....	.....	2.15	.....	0.80	2.2	9	.....	.....	.....	.....	Oliver H. Greist.
Terre Haute	Vigo	498	21	39.3	+ 8.7	72	17	15	10	35	2.86	− 0.23	0.68	4.0	9	11	3	14	sw.	Prof. R. G. Gillum.
Veedersburg	Fountain	612	12	36.6	+10.2	72	17	11	10	37	1.86	− 0.40	0.58	4.0	9	13	5	10	w.	L. A. Culver, jr.
Vevay	Switzerland	525	30	41.0	+ 7.3	72	17	18	21†	30	1.25	− 2.83	0.40	5.0	7	5	11	12	ne.	Miss Frederica Boerner.
Vincennes	Knox	431	19	37.4	+ 7.8	72	17	13	21	38	2.35	− 0.66	0.80	2.0	5	10	2	16	se.	Garrett V. List.
Washington	Daviess	484	15	36.6	+ 6.0	70	17	9	21	41	1.92	− 1.14	0.46	3.0	6	19	5	4	nw.	John T. Harris.
Whitestown	Boone	529	3	34.2	.....	67	17	11	10	33	1.54	.....	0.50	4.5	7	8	13	7	sw.	Clyde O. Laughner.
Winona Lake	Kosciusko	865	4	29.8	.....	58	17	9	21†	32	1.42	.....	0.43	8.5	8	3	12	13	nw.	Rev. Albert A. Young.
Worthington	Greene	526	29	38.0	+ 6.9	71	17	10	21	33	2.32	− 1.29	0.65	6.0	9	9	9	10	w.	D. W. Solliday.
Illinois.																				
Albion	Edwards	531	20	.....	.....	.....	.....	.....	.....	.....	2.09	− 0.86	0.46	5.8	10	8	12	8	ne.	B. F. Michels.
Charleston	Coles	720	26	36.4	+ 6.9	72	17	13	10†	37	1.62	− 1.57	0.53	2.1	8	8	7	13	nw.	Jacob B. Daisy.
Danville	Vermilion	604	9	36.4	.....	71	17	12	10	35	1.67	.....	0.55	4.6	10	12	2	14	w.	A. T. Lemon.
Equality	Gallatin	421	13	42.2	+ 8.1	76	16	17	21	40	2.23	− 0.99	1.00	2.0	8	13	5	10	s.	Dr. L. W. Gordon.
Fairfield	Wayne	495	18	39.9	+ 7.5	74	17	16	21†	38	2.19	− 0.16	1.18	1.5	4	14	0	14	nw.	Geo. A. Tromly.
Flora	Clay	495	25	39.2	+ 8.3	74	17	11	21	40	2.20	− 0.57	0.82	4.5	7	14	2	12	nw.	Jos. S. Peak.
Golconda	Pope	500	33	42.3	+ 6.1	78	16	16	22	39	2.62	− 1.29	1.19	T.	7	13	3	12	sw.	Dr. D. Lawrence.
Hoopeston	Vermilion	715	8	34.0	.....	63	17	8	10	30	1.97	.....	0.46	9.7	11	11	3	14	.....	S. F. Hoskinson.
McLeansboro	Hamilton	462	28	40.2	+ 6.5	77	17	15	21	41	2.72	− 0.68	1.80	0.2	5	19	2	7	nw.	R. C. Robinson.
Martinsville	Clark	630	23	37.8[d]	+ 7.7	73	17	10	21	35[d]	2.35	0.00	1.10	5.0	5	11	2	15	s.	G. M. Daugherty.
Mount Carmel	Wabash	424	9	38.2	.....	73	17	12	21	37	3.02	.....	1.10	4.0	8	13	2	13	n.	Mrs. H. M. Phillips.
New Burnside	Johnson	556	16	41.0	+ 7.1	76	16	14	22	37	1.84	− 1.07	0.85	0.4	9	14	3	11	s.	Geo. Harris.
Olney	Richland	486	24	39.2	+ 6.7	74	17	13	21	35	2.41	− 0.50	1.34	10.4	8	8	5	15	nw.	Victor E. Phillips.
Palestine	Crawford	500	29	38.4	+ 7.6	72	17	12	23	35[a]	2.56	− 0.67	0.80	5.5	9	10	5	13	nw.	Duane Shaw.
Paris	Edgar	600	18	34.6	+ 7.0	72	17	13	10	32	2.16	− 0.28	0.88	4.1	6	10	12	6	nw.	H. P. Twyman.
Philo	Champaign	700	27	34.2	+ 7.5	71	17	8	21	32	1.76	− 0.61	0.42	4.8	9	11	2	15	nw.	H. A. Burr.
Rantoul	....do	768	20	35.4[b]	+10.4	64	1†	8	10	34[d]	1.56	− 0.49	0.49	.....	8	10	4	14	nw.	Wm. Breiner.
Robinson	Crawford	500	11	39.3	+ 8.2	72	17	13	21	39	2.24	− 0.81	0.53	5.0	6	11	3	14	nw.	A. P. Woodworth.
Sumner§	Lawrence	459	5	39.2	.....	71	17	14	21	35	2.31	.....	0.60	10.0	7	12	4	12	nw.	O. A. Fyffe.
Tuscola	Douglas	644	18	34.8	+ 8.6	71	17	10	21	36	1.81	− 0.35	0.50	8.0	7	12	2	14	w.	E. W. Lester.
Urbana§	Champaign	725	9	33.7	.....	69	17	11	10	30	1.19	.....	0.33	4.5	8	4	17	7	w.	Prof. J. G. Mosier.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from the observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Wwather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to preceding day, on which it almost always occurs.
[ ] Estimated by observer.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 3, Ohio Valley.*

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
New York.																														
Allegany	Allegany	.01	T.		.42	.01	.08	.06	.20		.35		.01		.52	.01		1.05	.02	T.	.36		.25				.25	T.	.01	3.61
Bolivar	do			.56	T.	.15	.30	.24	.05		.10				.70	.23		.25	.20		.37		.41	.05			.07			3.68
Franklinville	do																													
Olean	do	.01			.58	T.	T.	.57			.03	.14			.05	.92		.17	.28	T.	.27	.10	.13	.09				T.	.01	3.35
Pennsylvania.																														
Aleppo	Ohio				.30		.10	.10	.22		T.				.08				.35	T.	.40	T.		.10				T.	1.65
Baldwin	Allegheny		T.		.85		.45		T.		.20			T.	.52	.05		.03	.34	T.	.52		.13	T.						3.09
Beaver Dam	Ohio	.07			.43	T.	.39	.21	.08	T.	T.	T.		T.	.10	.14	.01	.02	.33	.03	.57	.02	T.	.03				.01	T.	2.44
Bradford	Allegheny	.02			.56	T.	.24	*	.15		.12	T.			.98	.02		.47	.12		.29	T.	.08	T.	T.		T.	T.	T.	3.05
Brookville	do		.01		.56		.46				.02			.05	.45	.21	.03	.05	.45		.09				.50		.04			2.92
California	Monongahela																													
Clarion	Allegheny	T.			.50		.12	.20		.05	.03	T.				.80			.55	T.	.60	T.	.12	T.			.04	T.	3.01
Claysville	Ohio	T.			.32		.60	.06	.10		T.				.10	T.			.28	T.	.57	T.	T.	.06		T.				2.09
Confluence	Youghiogheny	.08			.35		.46	.12		.22	.04	T.				.26	T.		.02	.08	.53	.08	.10	.04	T.					2.38
Davis Island Dam	Ohio	.04	T.		.33	.02	.40	.07	.03	T.	T.	T.			.11	.16	.02	.01	.29	.02	.39	.02	T.	.01				.02	T.	1.94
Derry Station	Allegheny				.45		.25		.12		.04				.22				.60		.39		.02	.04						2.13
Franklin	do	.01	.02		.64		.28	.28			.02	T.		.02	.10	.58		.06	.44		.36	.06	.02	.06					T.	2.95
Freeport	do	.05			.41	.03	.35	.03		.02	T.	T.		.03	.05	.33	T.	.04	.33	.01	.53	.10	.05	.09				T.	T.	2.45
Greensboro	Monongahela	.14			.64		.75	.10	T.	.12						.20			.18	.22	.40	.12	T.	.04				T.		2.91
Greensburg	Youghiogheny		T.		.34	T.	.25	.05	.20		.05				.25	.08			.45	T.	.25	.03	.05	.03			.02	.05	T.	2.10
Greenville	Ohio	T.	T.	T.	.45	T.	.53	T.			T.			.11	.33	.04		.20	.08		.40	T.	.03	T.				T.	T.	2.17
Grove City	do	T.	T.		.63	T.	.27	.02			.04			.04	.35	.03		.03	.48		.29	.03	.06	.07						2.34
Herrs Island Dam	Allegheny	.09		T.	.31	.03	.34	.05	.03	T.	.01	T.			.10	.16	T.	T.	.28	.02	.45	.02	.02	.01			.02	T.		1.94
Indiana	do				.53		.30		.12						.40	.21			.50	.42			.03							2.51
Irwin	Monongahela	T.					.56				T.	.15				.31		.01	.45		.48	.02	T.							1.98
Johnstown	Allegheny		T.		.29	.01	.63		.06	.05	.03				.40	.48			T.	T.	.74	.02	.09	T.			.10		.02	2.92
Lock No. 4	Monongahela	.10			.31		.35	.05	.02		T.	T.			T.	.10			.30	.10	.35	.06	T.	.04				T.	T.	1.78
Lycippus	Allegheny				.58		.27		.21		.03				.31	.16		T.	.21		.40		.08				.01	.08		2.34
Parkers Landing	do				.56		.40	.20	T.	T.	.02	.04			.02	.96	T.		.44	T.	.50	.08	.10	.06					.04	3.42
Pittsburg	Ohio			.10	.17	T.	.46		.01	T.	T.				.26	.03	.01	.01	.34	.15	.41	.01	.02	T.			T.	T.	T.	1.98
Saegerstown	Allegheny		T.		.44		.42	.05	.10		.06			.08	.86	.13		.18	.27		.20	.06	.10	.05			.02	.02		3.04
Saltsburg	do	.06	T.		.36	T.	.38	.14		.08	.01	T.			.02	.68	.02	.01	.28	.06	.50	.14	.02	.06	T.	T.		.04		2.86
Skidmore	Ohio																													
Somerset	Youghiogheny				.65		.80				.11				.35	.25			.16		.75	.15	.16	.10						3.48
Springdale	Allegheny	.06			.35		.40	.04	.02	.08					.11	.30			.30	.03	.54	.05	.01	.03				.02		2.34
Uniontown	Monongahela				.52	T.	.36	.04	.27		.31				.14				.44	.05	.10	.20	.29				.05		T.	2.77
Warren	Allegheny				.50		.30	T.			.22				.90	.30		.40	.25	.10	.44		.30					.05		3.76
West Newton	Youghiogheny	.20			.44	.01	.70	.24	.04	.06	.01	.01			.01	.22	.04		.32	.08	.20	.04	.04	.08				.04		2.78
Maryland.																														
Deer Park	Youghiogheny				.35		.30		.15		.10								.05	.10	.20	.20	.20					.10		1.75
Grantsville	do						.40				.10		T.		.10				.10	.10	.30	.20	.10						T.	1.40
Oakland	do			T.	.30		.23		.10	.03	.06				.25			.02	.18	.12	.20	.10	.08						.08	1.75
West Virginia.																														
Bancroft	Great Kanawha	.47			.67		.27	.03	.15	.08						.05				.22	1.07	.05	T.	T.				.05		3.11
Beckley	do	.58			.34				.50	.14																				1.56
Bens Run	Ohio				.60		.45		.10		.08				.15				.30	.20	.69		.08				.04			2.69
Bluefield	Great Kanawha	.21							.91	.60										.60	.20									2.52
Brandonville	Monongahela	.30		.50	.45						.10				.48					.35	.20	.30	.40					.70		3.78
Buckhannon	do				.26		.15		.30		T.				.18				.38	.02	.54		.10				T.		.05	1.98
Cairo	Little Kanawha				.20		.05			.05					.08				.18	.20					.10					0.86
Central Station	Middle Island Creek	.02		T.	.18		.09	T.	.02		T.		T.		.05				.18	.10	.50	.03	T.	.02			T.		.03	1.22
Charleston	Great Kanawha	.33			.52		.18		.16	.10										*	1.20	.02	T.							2.51
Creston	Little Kanawha	.13			.57		.17	.05	T.	.07						.27			T.	.18	.42	T.	T.	.10			T.	.04		2.00
Cuba	Sand Creek	.30			.70		.40		.09		T.				.08				.20	.20	.10	T.	T.	.05			T.		T.	2.12
Davis	Monongahela																													
Elizabeth	Little Kanawha	.15			.60		.33	.05	.05	.03						.15				.27	.77		.01	.01						2.42
Elkhorn	Big Sandy			.38				.51	.46	.15									.36	.39	.02	.01	T.				T.		.02	2.30
Elkins	Monongahela	.01		.06	.15		.09		.30	T.	.01	T.	T.		.18				.30	.40	.13	.19	.15	.06			T.		.15	2.18
Fairmont	do	.12			.46	T.	.10	.13	T.	.12	.01	T.			T.	.05			.09	.14	.54	.06	T.	.09	T.			T.	T.	1.91
Glenville	Little Kanawha	.15			.30		.15	T.	T.	T.										.50	.63		.05	.05						1.83
Grafton	Monongahela				.61		.12		.32		.05				.28				.50	.30	.20	.10	.10							2.58
Green Sulphur Springs	Great Kanawha				.15		.10		.38	.48			T.		T.				.04	.55	.15	.01	T.						T.	1.86
Hinton	do	.48			.14		.02	.04	.26	.40	.24		T.							.16	.72	.06	T.							2.52
Huntington	Ohio	.32			1.38		.38		.14	.02					T.	T.				.48	1.16	.02	.02							3.92
Lewisburg	Great Kanawha	.41		.16			.10		.46	.41			T.						T.	.38	.13	T.	T.				T.			2.05
Logan	Guyandotte	.20	T.	T.	.96		.12		.28				.20	T.					.25	.65	.45	T.	T.				T.		T.	3.11
Lost Creek	Monongahela	T.			.22		.03	T.	T.		T.		T.		.08				.20	.06	.29	.04	.08	T.			T.		.09	1.09
Madison	Great Kanawha																													
Mannington	do	T.			.63	T.	.24	.08	.15	T.	T.								.33	.12	.60	.02	T.	.03		T.	.01	T.	.03	2.24
Marlinton	do	.05		.72			.20		.50											.16	.10	.50								2.23
Morgantown	Monongahela				.49		.05	.09	.22		T.				.13				.39		T.	T.	T.				T.		T.	1.37
Moundsville	Ohio	.04			.26		.20	.07	.25		T.				T.			T.	.26	T.	.32	T.	T.				T.		T.	1.40
New Cumberland	do				.40	T.	.22	T.	.20		T.				T.	.10	T.		.30		.40	T.	T.	T.			T.		T.	1.62
New Martinsville	do				.40		.42		.17						.13				.29		.60	T.	T.							2.01
Nuttallburg	Great Kanawha								.10	T.									.10	.30	T.	T.	T.						T.	0.50
Parkersburg	Ohio			.15	.35		.23	.01	.03		T.		T.		.09				.21	.32	.10	T.	.15				.01		T.	1.65
Parsons	Monongahela				.45				.50		.10				.45				.25	T.			.30	.20					.20	2.45
Philippi	do	.03			.25	T.	.15	.05	.37	.03	.05				.17				.15	.10	.55	.13	.05	.02			.02		.03	2.15
Pickens	do				T.		.35		.35		.10		T.		T.				.33	.40	.20	.50	.20	.20					.10	2.73
Pineville	Guyandotte																													
Point Pleasant	Ohio	.14	T.		.70	.01	.52	.04	.06						.01				.01	.40	1.28	.04								3.21
Powellton	Great Kanawha						.03		.83				T.		.03				.30	.43	.13	.03	T.				T.		.01	1.79
Princeton	do	.25		.22				.52	.61	.50									.25	.35	.10	.10							T.	2.90
Robertsburg	do	.32			.95		.36	.04	.09							.09			T.	.25	1.12						T.	.02		3.24
Rowlesburg	Monongahela	.14			.42		.04	.20		.24	.04	T.				.26			.04	.22	.55	.22	.02	.04				.01		2.44
Ryan	Great Kanawha	.21		.36	.14			.01	.20		.01				.02				.15	.75	.30	.03	.02				T.		.03	2.23
St. Marys	Ohio	.20			.07		.30	.17	.12		T.				.02	.12			.05	.27	.90	.07		.05			T.	.03		2.37
Smithfield	Fishing Creek	.10	T.		T.			.22	T.			T.			.11				.37	.20	.20	T.							.05	1.25
Spencer	Little Kanawha	.29			.45	T.	.25	.03	T.		T.			T.		T.				.43	.32	.10	.10	.05	.49				T.	2.51
Sutton	Great Kanawha			.03		T.			.30					T.					.40	T.	.20	T.	T.				T.		.10	1.03
Terra Alta	Monongahela				.68		.35	T.							.38			.01	.30	.20	.42	.12	T.	T.		T.				2.46
Union	Great Kanawha								.48	.34			.21								.40									1.43
Valley Fork	do																													
Webster Springs	do																													
Wellsburg	Ohio			T.	.27		.40	.07						T.	.10			T.	.40		.40		.20	.10			T.	.05		1.99
Weston	Monongahela	.20					.10	.20	T.	.12	.02				.02		.06		T.	.30	.48	.20	.10				T.	.02	T.	1.82
Wheeling	Ohio	.18			.20	.05	.30	.15	.10	.01	T.	T.				.05	.01		.10	.05	.47	.02	T.	.03				.05		1.77
Williamson	Big Sandy	.16			.88		.08	.06	.20	.24			.04						T.	.28	.98	T.	.05					T.		2.97
Ohio.																														
Amesville	Ohio	.08		T.	.32	T.	.47		.08						.13				.16	.20	.51		T.				T.		T.	1.95
Bangorville	Muskingum	T.	T.		.39		.70		.09		T.					.25			.01	.25	.25	T.	.02				.18		T.	2.14
Bellefontaine	Great Miami			T.	.42		.18				T.			T.	.17	.03	T.	.03	.27	T.	.36	T.	.06				.03			1.55
Bladensburg	Muskingum			T.	.54		.75		T.		T.				.10				T.		.40		.10							1.89

TABLE 2.—*Daily precipitation for February, 1911. District No. 3*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Ohio—Continued.																														
Cadiz	Ohio	T.		T.	.30	T.	.68		.20		.01		T.	T.	.10			T.	.22	T.	.55	T.	.09				.01		T.	2.16
Cambridge	Muskingum				.32		.33		.24						.11				.19		.30								1.49
Camp Dennison	Ohio			.02	.01	T.	.48		.05				.02		.02		T.	T.	.12	.44	.34						T.		.03	1.53
Canal Dover	Muskingum	.04			.53		.45		.12		.02				.13		T.		.25		.50									2.04
Canton	do			.16	.28		.75		.11		T.			T.	.21	.03		.15	.33		.46	T.	.05				T.			2.53
Cardington	Scioto				.40	.23	.40	.10						.05			.03				.35	T.	T.						T.	1.56
Chillicothe[‖]	do	.02				.17		.55	.03										.10		.85									1.72
Cincinnati	Ohio			.02		.08	.40	.05							.05		.04		.15	.86	.09						.02		.04	1.80
Circleville[‖]	Scioto	.12			.16		.33	.11	.20						.11				.12	.01	.74	T.		T.					T.	1.90
Clarington	Ohio	.05	T.		.30		.32	.15	.25			T.			.13				.31	.02	.25	.30	T.	.05			.03		.01	2.17
Columbus	Scioto			.22		.15	.29	.04	.01	T.	T.			.01	.09	T.	T.		.24	.46	.20	T.	T.				T.		T.	1.71
Coshocton[‖]	Muskingum	.15	.03		.28		.60	.20	.11					.02	.15					.28	.30				.01					2.13
Dayton	Great Miami			.08	.25		.33		.11						.12				.18	.12	.38		T.						T.	1.57
Delaware	Scioto			.07	.32		.31		.22		T.			T.	.12	T.	T.	T.	.19		.31	T.	T.	T.			.01		T.	1.55
Demos	Ohio		.03	T.	.30		.42		.22				T.	T.	.14				.34	.04	.26	.02	.02	T.			.04	.02		1.85
Dennison	Muskingum				.44		.49	.04	.10						.19	.02		T.	.31		.47						T.			2.06
Frankfort	Scioto			T.			.60		T.						.10				.20	.10	.50									1.50
Garrettsville	Mahoning				.56		.39	.06	.05		.01		T.		.52			.06	.32		.23	.02	.04	.03			T.		T.	2.29
Granville	Muskingum			.01	.20		.60		.05		T.			T.	.10				.34	T.	.40	.03	T.				T.		T.	1.73
Gratiot	do			T.	.60		.40		.24						.12			.02	.19		.40	.02	.02						T.	2.01
Green	Ohio			.40	.42	.47									T.					.20	1.20						T.		T.	2.69
Green Hill	Muskingum			.01	.49	T.	.81			T.	T.		T.	T.	.30	T.		.06	.32	T.	.33	T.	.02	T.			T.		T.	2.34
Greenville	Great Miami				.30		.38		.07						.19		.07		.31		.18									1.50
Hillsboro	Scioto			.20	T.		.67		.12		T.		T.		.12				T.	.81	.63		T.				.07		.02	2.64
Ironton	Ohio	.14		.01	.90		.36		.14						.03				.33	.30	1.40								.04	3.65
Jacksonburg	Great Miami			.28			.40	T.						.10			T.		.25		.52						T.	T.	T.	1.55
Kenton	Scioto				.69		.24								.23						.10	T.	T.				T.			1.26
Killbuck	Muskingum				.40		.80		.02						.15		T.	.04	.20		.22	.04	T.				.04			1.91
Lancaster	Ohio			.10	.30		.12		.16		T.				.06	T.	T.		.18	.18	.50		T.				T.	T.		1.60
McConnelsville	Muskingum			.06	.49		.44		.29		T.				.11				.12	.14	.04						T.		.03	1.72
Marietta	Ohio				.46		.42		.16		T.				.15				.23	.17	.51		.04						.01	2.15
Marion	Scioto				.38		.84								.28	T.			.28		.29	T.	.02				T.			2.09
Milfordton	Muskingum	T.	T.	T.	.35	.52	T.		T.					T.	.36				T.		.40		T.							1.63
Milligan	do				.44		.37		.28		T.				.08				.16	.42	T.		.02				T.		T.	1.77
Millport	Ohio				.52		.34	.18	.05				T.	T.	.32	.07		.03			.60	T.	T.				.07	T.	T.	2.18
Nellie	Muskingum				.60		.70		T.									T.			.35									1.65
New Alexandria	Ohio			T.	T.		.80	.20			T.			T.	.30						.60		T.						T.	1.90
New Berlin	Muskingum	.13			.75		.45		.13						.30	.21			.52		.40									2.89
New Waterford	Ohio																													
Ohio State University	Scioto			.05	.24		.25		.08		T.				.11				.21	.04	.38	T.							T.	1.36
Pataskala	Muskingum			.12			.39		.10		T.				.10				.25	.05	.42	.01	.02				.01		T.	1.47
Peebles [‖]	Ohio				.13		.43		.06						.10					.20	1.50								.01	2.43
Philo (1)	Muskingum			T.	.33		.15		.23						.04				.09	.04	.25									1.13
Piqua [‖]	Great Miami	.11		.31			.33	.05							.22			.04	.26		.35									1.67
Plattsburg	do			T.	.60		.20						T.	T.	.19			T.	.10	.05	.30		T.				T.		T.	1.44
Portsmouth [‖]	Ohio	.23			.50		.50	.01	.06						.05				.02	.49	1.26	.02							T.	3.14
Prospect [‖]	Scioto																													
Rittman	Muskingum				.44		1.00								.53				.45		.30		T.							2.72
Shenandoah	do				.26		.62		.02					T.	.30	.02		.23	.29		.50	T.	.08				T.		T.	2.32
Sidney	Great Miami			.04	.35		.36								.19		.03		.22	T.	.21	T.	T.				.01			1.41
Somerset [‖]	Muskingum	.14			.19	T.	.20	T.	T.		T.	T.			.12	T.			.18	T.	.60	T.		T.			T.	T.	T.	1.43
Springfield	Great Miami			.10	.26		.42		.07						.12	T.	.02	T.	.18	T.	.41					T.			T.	1.58
Summerfield	Ohio						.40		.36		T.				.16				.28	.08	.32	T.	.09	T.			.02		T.	1.71
Syracuse	do	.15		T.	.95	.55			.07	T.					.07					.20	T.	T.	.10						T.	2.09
Thurman	do				T.	.60		.47	T.										.18	.10	T.		T.				T.		T.	1.35
Urbana	Great Miami						.53								.10			.04			.70		T.			.03			T.	1.40
Warren	Mahoning		T.	T.	.44	T.	.54	.04	.12			T.		T.	.38			.18	.26		.73	.05	.06				T.		T.	2.80
Waverly	Scioto				.07		.35								.17					.62	.31								T.	1.52
Waynesville	Great Miami				.27		.38						.01		.13						.15	.10								1.04
Wooster	Muskingum			T.	.47		.50								.25			.05	.36	T.	.60	T.	T.				.02		T.	2.25
Youngstown [‖]	Mahoning	.10			.20	.10	.60		.30					.80	.28			.28			.50	.30		.20					.10	3.76
Zanesville [‖]	Muskingum	.05			.30	T.	.25	.05	.30		T.	T.			.02	.05		.01	.15	.06	.40	T.		T.			T.	T.	T.	1.64
Virginia.																														
Big Stone Gap	Tennessee	.08			.70		.38	*	2.20	.25		T.			.20				T.	.25	.63	T.					T.		T.	4.69
Blacksburg	Kanawha			T.	.07		.02		.65	.51			.01		T.	T.	.03		T.	.38	.17	T.	T.							1.84
Burkes Garden	Tennessee	.20			T.				1.35	.62			T.		T.				T.	.55	.16	T.					T.			2.88
Elk Knob	do			.07	.55	T.	.36	T.	1.99	.27		T.	.13	.02	.09				.01	.06	.66	T.					.01		T.	4.12
Galax	Kanawha				T.		T.		.80	.30		T.									.06	T.							T.	1.16
Ivanhoe	do	.12			.11		T.	T.	.35	.43		.20	.15	T.		T.				.15	.13	.10	T.					T.	T.	1.74
Lebanon	Tennessee				.84				1.66	.31			.10		.01				T.	.25		.05							T.	3.22
Marion	do	.35			.40		.06		1.03	.75		.02	.07							.17	.33	T.					.05		T.	3.23
Max Meadows	Kanawha						T.		.77	.38										*	.50								T.	1.65
Mendota	Tennessee		.06		.78		.06	.20	1.14	.78	.20		.10			.06				.04	.06		T.					.28		3.76
Speers Ferry	do				.80		.30	.08	1.56	.50	.10										.55	T.						.10		3.90
Wytheville	Kanawha	.01			.07		.02		.71	.73		.04								T.	.32	.14	T.						T.	2.04
North Carolina.																														
Altapass	Tennessee						.23					.20			.45	.33							.23	.20				.19	.33	2.16
Andrews	do			.85	.01		.40		2.35	.69		.28	.10		.15						.63						.06	.13		5.65
Asheville	do			T.	.63		.18	.08	.58	.51		.05								.04	.12	T.					T.		T.	2.19
Banners Elk	do				.50		.13		.93	.58		.20															.30		T.	2.64
Brevard	do				.47		.23		1.00	.63		.15								T.										2.48
Bryson City [‖]	do				.85			.34	.90	1.10	.15		.35			.10					.50							.09		4.38
Cullowhee	do				.49			.30	.15	1.13		.21	.08		.01	T.					.26									2.63
Eagle Nest	do																													
Hendersonville	do				.56		.20	.87		.64		.05					.30				.44									3.06
Highlands	do			.50			.03		1.55	.45		.60					.75			.70										4.58
Hot Springs	do				.82		.29		1.03	.62		.05	.07		T.						.20	T.						.11		3.19
Jefferson	Great Kanawha	T.			.26		.09		.84			T.	.50		T.		T.	T.		T.	.33	T.					T.			2.02
Marshall	Tennessee																													
Murphy [‖]	do								1.40	1.10			.20									.20						.30		3.20
Rock House	Savannah																													
Waynesville [‖]	Tennessee	.01			.61	T.	.01	.25	.80	.78			.10		.07	.02	.02	.02			.48	.02						.01	T.	3.20
Georgia.																														
Diamond	Tennessee				.58		.50	T.	.84	.57		.56			.21						.78						.02	.60		4.66
Lafayette	do			T.	.58		.63		.81		1.32	.46	.07								.55					.09		1.09		5.60
Alabama.																														
Bridgeport	Tennessee				.35		.42	.40	1.50	.70	.10		.50		.04						.55							.60		5.16
Decatur	do				.23		.90	.38	.47	.88	.08	.05	.28		.02	.09					.47						.04	1.10	.06	5.05
Florence	do				.48		1.06	T.	1.60	.62		.12	.36		.32	.04					.26						.07	.41		5.34
Guntersville	do				.31			.88	.05	1.52	.06		.37		T.	.15					.60							1.03	.04	5.01
Madison	do				.20		1.16	.05	1.36	.64		.36		T.	.08					.44	T.					.12	.78		5.19
Riverton	do				.42		1.02		1.35	.55		.06	.55		.22						.53						.15			4.85
Scottsboro	do				.12		1.02	.08	1.18	.77		.24			.06	.12					.23						.10	1.26		5.18
Tuscumbia	do				.28		1.00		1.67	.61		.16	.37			.18	.02				.41						.04	.49		5.23

TABLE 2.—*Daily precipitation for February, 1911. District No. 3*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Tennessee.																														
Ashwood	Tennessee			.15	.40		.75	.45	1.00	.16		.35			.12					.50	T.		T.			T.			T.	3.88
Benton	do				.25		.70	T.	2.43	.61		.40	.05	.02	.03					T.	.40						T.	.28		5.17
Birds Bridge	do				.93		.01		.50	.80	.36		.18							.20	.03									3.01
Bluff City	do				.52			.16	.70	.94	.34		.18								.32	.04								3.20
Byrdstown	Cumberland			.40	.75		.52		1.10	.15		.10								.20	.20									3.42
Carthage	do			1.18			.48	T.	1.80	.38			.18		.02	T.					.48									4.52
Cedar Hill	do			.15		T.	1.50	T.	.40			.10		.30			T.		T.	1.00	.10	T.					T.		.10	3.65
Celina	do				1.55		.85		.81	.26			.07		T.					.33	.68						T.			4.55
Center Point	Tennessee				.75		.85		.27	.58		.25		.28							.65	T.	T.							3.63
Charleston	do		.14		.12		.05	.50	1.30	1.05	.10		.10		.04	.02					.75							.10		4.17
Chattanooga	do			.26	.05		.67	.08	1.30	.47		.57	.01		.09	.02		.01		.47	.01	.01					.21	.12	.06	4.41
Clarksville	Cumberland			.38	.20		.47	.01	.21			.09		.09						1.22	.03	T.					.02		T.	2.72
Clinton	Tennessee				.90		.15	.20	1.65	1.15	.15		.23	T.	T.	.10			T.		.75	.05					.05			5.38
Dandridge	do				.80			.10	.30	1.20	1.02	.20								.28	.02								3.92
Decatur	do	.01		T.	1.00	.01	.49	.08	1.33	.40		.19	.06	.01	.06			.03		T.	.53	T.	T.				.04		T.	4.24
Dickson	Cumberland			.12	.46		.63	.46	1.06	T.		.23		.07	.12					.58	.06									3.79
Dover	do			1.24		.39		T.	.24			T.		T.	.35		T.		T.	1.33	T.	T.				T.			T.	3.55
Dunlap	Tennessee				.65		.83	.20	1.45	.38		.17			.05						.47						.05			4.25
Elizabethton	do				.52			.16	.20	1.39	.40	.60									.25	.55								4.07
Erasmus	Cumberland			.05	1.39		.62	.44	1.12	.21		.12		T.	.14					.19	.24						.12		T.	4.64
Florence	do			.24	1.56		.61	.06	2.40	.28		.22			.10					.20	.22						.02		T.	5.91
Franklin	do				1.91		.70		1.31	.38			.24		.10					T.	1.03						T.			5.67
Hall's Hill	do				.78		.72		1.75	.30			.30		.10						.32	T.					.10			4.37
Harriman	Tennessee			1.15			.62		1.90			.18			.22						.55	T.								4.62
Hohenwald	do			.21	.55		.91	.64	1.20	.20		.43			.17					.80										5.11
Iron City	do			.07	.35		1.56	T.	1.86	.32		.54		.02	.24		T.			.56							.17	.03	T.	5.69
Jefferson City	do				.75		.53		2.15	.35		.16			.03						.30	T.	T.	T.		.03	.01			4.31
Johnson City	do			.56		.01	.10	.69	.65	.35		.14		.04	T.					.29	T.	T.	T.				T.		.31	3.14
Johnsonsonville	do			.35	.15		.46	.11	.53			.18		.08	.10					.78	.01	T.					.01		T.	2.76
Kingston	do				.76		.36	.18	1.00	.62	.06		.20		T.	.11					.80						.04	T.		4.13
Knoxville	do		T.	.85	.15		.53	.23	2.03	.30		.19	.02	T.	.02					.41	.03	T.					.01	.01	.05	4.83
Lebanon	Cumberland			1.23			.41	.20	1.85	.14		.15			.07					.23	.21	T.					.10		T.	4.59
Lewisburg	Tennessee			.13	.95	T.	1.04	.22	1.41	.22		.28			.14		T.	T.		.90	.04						.09		.03	5.45
Livingston	Cumberland			.64	.43		.37		1.34	.34		.08								.33	T.									3.53
Loudon	Tennessee		T.		1.13		.15	.29	1.14	.81	.11		.13	T.		T.					.35	T.							.07		4.18
Lynnville	do			.31	.71	T.	1.10	.33	2.05	.20	T.	.35		.10	.12					.71	.11	T.								6.09
McGhee	do				1.10		.15	.30	1.20	.90	.20		.20		T.						.20	T.						.10		4.35
McMinnville	Cumberland		T.	.08	.47		.73	.07	1.29	.23		.19	T.	T.	.11					.07	.25	T.					.11		T.	3.60
Maryville	Tennessee				1.13		.57		1.85	.54		.10		.02	T.						T.						.03	T.		4.24
Mountain City	do				.43		.15		1.21	.54	T.										.31									2.64
Nashville	Cumberland			1.60		T.	.44	.37	.90	.07		.14		.04	.06		T.			.95	T.	T.				T.	.02		.09	4.68
Newport	Tennessee				.96			.31	.35	1.10	.32					.23					.32	.07						.03		3.69
New River	Cumberland				.84		.56		1.20	.67			T.								.71	.01	T.							3.99
Palmetto	Tennessee		T.	.23	.60		.92	.20	1.25	.20		.31			.07					.30	.15					.05		.03	4.31
Pinewood	do			.28	.98		.46	.25	1.08	.05		.28		.18	.25					.59	T.					.10		T.	4.50
Pope	do			.15	.23	.90			1.04	T.		.35		T.	.21					.76										3.64
Rogersville	do	.01			.76		.06	.35	1.14	.74	.11	T.	.13	T.		.02					.30	T.	T.				.01	.03	T.	3.66
Rugby	Cumberland			.45	.60		.60	.11	1.48	.18		.25								.24	.44	T.				T.		T.	4.35
Savannah	Tennessee				1.00			.80	1.00			.38								1.45										4.63
Sevierville	do				1.00		.41		1.82	.49		.07	.13		.02						.20					.06	.02			4.22
Sewanee	do				.47		.99		1.30			.15										1.11				.07	.17			4.26
Sparta	Cumberland			.50			.73	T.	1.83	.10		.05			T.					T.	.05	T.								3.26
Springdale	Tennessee			.11					1.20	.50					.35						.65	.11				.09		T.		3.01
Springville	do			.19	.76		.37	T.	.27			.11		.07	.20				T.	.98	T.					T.		.07		3.02
Tazewell	do				.79		.47	.16	1.10	.59	T.		.10			T.					.56	T.	T.				T.	T.			3.77
Tullahoma	do			.19	.45		.91	.54	1.77	.31		.39	.01		.06					.04	.29	T.					.10				5.06
Walling	Cumberland				1.01		1.20	.04	2.20	.75			.10			.04					.30						.05				5.69
Waynesboro	Tennessee			.12	.66		.86	.33	1.47	.20		.33		.07	.32		.04			.63	T.	T.					.13		.06	5.22
Wildersville	do				.55		.50	.15	.82			.25		T.	.20					.78	T.						T.		.39	3.64
Worsham	Cumberland			.42		.82			.46			.13			.20					.13	.64					.05				2.85
Yukon	Tennessee				.46		1.26	.32	1.45			.35		.04	.13			T.		.25						T.	.30	T.		4.56
Kentucky.																														
Alpha	Cumberland			1.53		.80		.24	1.20			.15	T.	T.	T.					1.25	T.						T.		T.	5.17
Anchorage	Ohio			.06			.62		.12						.08			T.	.40	.60	.12						T.		T.	2.00
Bardstown	Salt	.09			.28		.50		.35	T.			.04		.13					1.10	2.10							.12		4.71
Beattyville	Kentucky	.14			1.58		.38		.34	.32			.10		.02					.36	.96	.18	T.				T.	.18		4.56
Beaver Dam	Green				.15		.42	T.					T.	T.	.07				T.	1.00	.50	T.	T.					T.		2.14
Berea	Kentucky			1.12					.32			.08							.17	.12	.10	.12							.03	2.06
Bowling Green	Green				.65		.33		.93				.10		.20					.45	.70					.05				3.41
Burnside	Cumberland				1.64		.56		1.16	.16			.06		T.					.30	.50	T.	T.			.04				4.42
Cadiz	do																													
Calhoun	Green			.01			.73	.02	.06			T.		.01	.08				.14	1.19	.21	T.				T.		.15	2.60
Catlettsburg	Big Sandy	.20			1.40	T.	.40		.16	.04					.02	.04			T.	.36	1.26	.02	T.				T.			3.90
Earlington	Green				.11		.50		.13						.08					1.00	.79					.03				2.64
Edmonton	do			.25	1.55		.87		.95			.08			.13				.09	.70	.38	T.				.07	T.			5.07
Eubank	Cumberland	.04			1.35		.45		.75				T.								.30	.90		T.			.02			3.81
Falmouth	Licking	.05			.20		.54		.06						.10					.15	.68	.80	.01						.01	2.60
Farmers	do			T.	1.36	.62			.38						T.					.36		.80	T.							3.52
Frankfort	Kentucky	T.			.01		.09		.11			T.	T.		.19					.21	.40	.61	.17	.07				.04	T.	1.90
Franklin	Green			1.77		T.	.64	T.	.80			T.		.33						1.07	T.	T.				T.		T.	4.61
Greensburg	do				1.57		.69		.66				.06		.13					.35	.60	.02	T.							4.08
High Bridge	Kentucky	.08			.70		.64		.06						.06					.22	1.51	.05				.02	.01			3.35
Hopkinsville	Cumberland			.10	.25		.70		.85			.05		.10	.25					1.20	T.					.15		T.		3.65
Irvington	Ohio			T.			.90		.12						.20					.24	1.20	.08	T.			T.		.05		2.79
Leitchfield	Green			.29			.62	.16							.27						1.74	T.	T.						T.		3.08
Lexington	Kentucky			.32		T.	.49	.17	.05			.01	T.		.08					.23	.83	T.	T.			.01		.02		2.21
Loretto	Salt			T.	.20		.44					T.			T.					.13	.68	.20								1.65
Louisville	Ohio			.03		T.	.74	.12	.01			T.	T.	T.	.12					.46	1.02	.28	T.			T.		.02		2.80
Marion	do						1.03		T.					T.	.23		T.			*	1.48					T.		T.		2.74
Maysville	do	.02			.20		.50		.08						.04	T.					.49	1.26	.02				.02	T.		2.63
Middlesboro	Cumberland			.03	.84	.53			1.70	.34		.10	.10		.02	.04						.52					.05				4.27
Mount Sterling	Licking	.16			.89		.77		.46				T.			.11			T.	.38	.87	T.				T.				3.64
Owensboro	Ohio	.02			T.		.78		.11				T.		.12				.05	.80	.30	T.					.12			2.30
Owenton	Kentucky			.25			1.15	.15						.11						1.40						T.		.03	3.09
Paducah	Ohio						1.00		.20								T.			1.40	.40									3.00
Paintsville	Big Sandy											T.			T.					.24	1.02	T.				T.				
Pikeville	do	.10		1.00			.24		.52	.50			.48								.30	.68	.22	.16						4.20
Richmond	Kentucky	.19			1.33		.53		.17				.05		.04				T.	.56	.93	.05				.05				3.90
St. John	Salt	.30			.20	T.	.50		.15	T.		.03			.18			.03	.04	.40	1.10	.02				.03	.08			3.06
Scott	Licking			T.		T.	.44		T.				T.		.10		.07		.19	.89	.34	T.						.05		2.08
Shelby City	Kentucky	.25		.24	.83		.54		.16			T.	.05		.10				.13	.88	.52	T.						.04		3.74
Shelbyville	Salt				.20		.60		.22				T.		.05				.03	.85	.75	T.				T.	T.			2.70
Taylorsville	do			T.	.04		.56		.15			T.		T.	.11				.25	1.11	.54	T.			.05		.03		2.84
Williamsburg	Cumberland				.97		.73	T.	1.53	.39			.05		.03						.05	.58	.03	T.			T.	T.			4.36
Williamstown	Licking	.14			.10		.55		.07						T.				T.	.25	.65									1.76

TABLE 2.—*Daily precipitation for February, 1911. District No. 3*—Continued.

Stations.	River basins.	Day of month.																										Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Indiana.																														
Anderson	West Fork, White			T.	.10	T.	.35				T.		T.	T.	.22	T.	.08	T.	.26	.03	.09	T.								1.13
Attica	Wabash				.12		.50								.30			.27	.25		.30						.06			1.80
Bloomington	West Fork, White	T.			.08		.51							T.	.20			.39	.13	.55	.75	T.					.04		.06	2.71
Bluffton	Wabash				.16		.07	.07							.35			.02	.44		.05	.02					.04			1.22
Butlerville	East Fork, White			.08		.10	.46								.13		.24		.30	.68	.22								.13	2.34
Cambridge City	Whitewater				.17		.45	T.	.04				T.		.16			.09	.14		.30	T.					.04		T.	1.39
Columbus	East Fork, White	.04			.10		.03								.30			.20	.11	.30	.46						.03		.05	1.62
Connersville	Whitewater				.27		.40								.20				.12		.20								T.	1.19
Crawfordsville	Wabash					.07									.03		.50		T.	T.	.25	T.					.02			0.87
Delphi	do				.10		.47								.25			.22	.40		.20	T.	T.				.07			1.71
Eminence	West Fork, White				T.		.40						T.	T.	.29		.24		.04	.25									.07	1.29
Evansville	Ohio			.02		.70	.05							.04	.11		T.		.19	.66	T.					T.	.04		.03	1.84
Farmersburg	Wabash			T.											.37		.45		.35	.25								.15		1.57
Farmland	West Fork, White				.60		.24								.16			.11	.26		.05									1.42
Greenfield	East Fork, White			.05			.41								.11		.10		.11	T.	.23								T.	1.01
Greensburg	do																													
Huntingburg	Wabash																													2.20
Huntington	do			T.	.10	T.	.68							T.	.40		T.	.05	.35		.10									1.68
Indianapolis	West Fork, White			.03		.31	.09				T.		T.		.29		.12	T.	.11	.23	.05						.04		.01	1.28
Jeffersonville	Ohio			.03		T.	.75	.05	.02					T.	.12				.49	1.03	.09						T.		.02	2.60
Judyville	Wabash			T.	.12	T.	.40								.28		.13		.25	T.	.12	T.					.06			1.36
Kokomo	do				.21		.45								.20		T.		.45		T.						T.		.05	1.36
Lafayette	do				.13		.43							T.	.58	T.		.19	.32	T.	.20	.04	T.				.05			1.94
Logansport	do						.66							.04	.23				.46		.17						.07			1.63
Madison	Ohio			T.	.05		.66								.15		.05			.94	.22								.06	2.13
Marengo	do			.05		*	1.00	.07				.03		T.	.22		T.		.35	.76	.10						.22		.06	2.86
Marion	Wabash				.15		.43								.35		.02	.01	.31		.15						.13			1.55
Mauzy	East Fork, White		T.	.02	.14	T.	.44		.06		T.		T.	T.	.16		.08		.12	.10	.10	T.					.03		.02	1.27
Monticello	Wabash				.21	.45				.20					.45			.20	.48	T.	.41						.21			2.61
Moores Hill	Ohio			T.	.05		.63										.05	.13	.20	.80	.10								.05	2.01
Mount Vernon	do						.48		.10						.07			.06		1.00	.44									2.15
Paoli	East Fork, White			T.	.01	.01	.58								.13		.05		.27	.90	.06								.04	2.05
Princeton	Wabash			.36												.51													.15	2.75
Richmond	Whitewater			.32		.33	.03							.04	.18		.06		.15	.11	.10						.02		T.	1.34
Rochester	Wabash				.30		.65							T.	.50		.10	.08	.37		.10						T.			2.10
Rockville	do		T.	T.		T.	.42						T.	T.	.11		.44		.05	.05	T.	T.					T.		T.	1.07
Rome	Ohio			T.	.01		.91	.02	.31						.11				.22	1.10	.25	T.					.04	T.	.03	3.00
Salamonia	Wabash			T.	.23		.25								.15		.04		.35		.10	T.	T.				T.			1.12
Salem	Ohio			T.	T.	T.	.75						T.	T.	.19		.20		.34	.85	T.						.10		T.	2.43
Scottsburg	East Fork, White			T.			.82								.22		T.		.91	.50	.05								T.	2.50
Seymour	do			T.	T.	T.	.47		.03						.18		.30		31	1.15	.15						T.		.08	2.67
Shelbyville	do			.05			.40								.05		.12		11	.15	.22								.04	1.14
Shoals	do	.02			.06		.55								.04			.14	.10	.80	.40								.04	2.15
Terre Haute	Wabash			.06	.08	T.	.20								.68		.52		.10	.52	.02								.18	2.36
Veedersburg	do			.01	.11	.05	.30						T.		.22		.58	.01	.23	T.	.36									1.86
Vevay	Ohio						.40								.10		.05		.15	.35	.15						.05			1.25
Vincennes	Wabash	T.			T.		.55		T.						.15			T.	.40	.80	.45	T.					T.	T.	T.	2.35
Washington	West Fork, White			T.		T.	.40							T.	.06		.35		.25	.46	.40									1.92
Whitestown	do			T.	.15		.50			T.					.29			.13	.25		.17	T.					.05			1.54
Winona Lake	Wabash				.13		.43				T.			.03	.31		.04	.05	.34		.09	T.	T.				T.			1.42
Worthington	West Fork, White			.04		T.	.39							T.	.23		.55	.01	.22	.65	.15						T.		.08	2.32
Illinois.																														
Albion	Wabash			.02		.02	.46								.23		.36		.40	.20	.15						.05		.20	2.09
Charleston	do					.02	.51								.32		.38		.19	*	.14								.06	1.62
Danville	do			.02	.01	.07	.48							T.	.34		.22	T.	.23	.02	.25						.03			1.67
Equality	Ohio			T.		T.	.42	T.				.04	T.	.07			.08		.32	1.00	.20					T.			.10	2.23
Fairfield	Wabash																.44		42	1.18	.15									2.19
Flora	do			T.		T.	.42		T.			T.	T.	T.	.17		.42		.24	.82	.08								.05	2.20
Golconda	Ohio			T.			T.	.91				.03		T.				.23		1.19	.08						.15		.03	2.62
Hoopeston	Wabash			.03	.14	.15	.46		T.				.02	T.	.28		.09	T.	.35		.36	.02					.07			1.97
McLeansboro	Ohio						.40								.30	.20		.60	1.20	T.									.02	2.72
Martinsville	Wabash					*	1.10										.75			.10	.30								.10	2.35
Mount Carmel‖	do				.06		.46								.14			.48	.20	1.10	.48	T.							.10	3.02
New Burnside	Ohio						.60				T.	T.	T.	.02	.11		.02		.05	.85	.14						.03	T.	.02	1.84
Olney	Wabash			.05		.38							T.		.19		.27		.34	1.00						14		T.	.04	2.41
Palestine	do			T.	.05	.02	.44						T.	T.	.28		.48		.29	.80	.07								.13	2.56
Paris‖	do				T.		.05								.88			.48	.20	T.	.45								.10	2.16
Philo	do			.04		.12	.30								.35		.41	T.	.14	.20	.15					T.			.05	1.76
Rantoul	do			T.	.11	.07	.42						T.	T.	.33		.11	T.	.33	T.	.15						.04		T.	1.56
Robinson	do			T.		.53								.30			.52	.34		.45									.10	2.24
Sumner	do			T.		T.	.47								.24		.38		.22	.60	.30								.10	2.31
Tuscola	do					T.	.50		T.					T.	.25		.41	.18		.30	.05								.12	1.81
Urbana	do			.04		.33	T.	T.					T.	T.	.26		.08	T.	.23	.19	.05					T.	.01		T.	1.19

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 3, Ohio Valley.*

Date.	Pennsylvania.				West Virginia.																Ohio.							
	Greenville.		Pittsburg.		Charleston.		Elkhorn.		Elkins.		Glenville.§§		Huntington.§§		Morgantown.		Parkersburg.		Wheeling.§§		Canton.		Cincinnati.		Columbus.		Dayton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	44	19	44	27	70	35	67	32	57	32	60	29	64	28	52	25	55	33	58	23	48	22	64	37	47	26	49	25
2....	50	23	58	25	69	44	66	45	60	32	64	39	60	39	61	35	62	36	52	24	57	29	64	34	58	31	59	33
3....	44	18	48	23	65	34	62	32	55	24	56	37	52	34	57	22	54	30	50	20	42	24	47	32	43	28	43	30
4....	37	32	48	34	60	42	53	40	46	33	53	39	45	34	44	36	49	33	41	32	40	32	44	31	43	29	40	32
5....	33	18	34	21	45	29	51	22	39	27	41	26	41	28	36	23	36	27	34	25	35	23	36	28	30	23	35	25
6....	30	18	39	23	62	30	55	25	46	31	56	31	62	30	48	25	57	29	47	20	39	23	55	31	43	25	44	26
7....	34	20	36	26	62	38	57	33	44	31	54	34	48	35	42	33	39	32	34	31	36	22	43	28	34	23	34	22
8....	34	26	38	28	52	40	55	41	49	31	51	38	47	35	42	29	40	34	38	32	43	28	44	29	36	28	36	26
9....	39	21	40	26	44	35	51	35	35	30	40	33	46	33	40	30	44	30	46	29	43	24	46	28	43	25	46	22
10....	31	21	31	22	47	27	38	24	33	15	38	25	37	25	39	21	34	22	28	24	30	21	34	19	28	20	33	17
11....	39	5	41	20	45	24	45	21	42	13	43	16	44	21	42	18	40	19	45	17	43	17	45	24	41	23	43	20
12....	40	18	40	31	45	38	45	30	37	33	42	32	43	25	42	34	42	36	43	17	39	29	42	36	40	32	.....	.....
13....	38	33	44	35	63	30	61	29	62	26	61	33	58	31	55	35	53	38	51	19	43	36	53	42	49	37	46	36
14....	44	35	63	41	75	48	63	40	66	38	72	43	72	35	67	42	72	45	68	33	61	39	66	51	64	45	65	45
15....	45	32	52	40	75	46	63	41	57	38	70	45	61	43	64	47	52	39	49	44	49	42	57	43	49	42	56	41
16....	49	30	53	34	72	36	65	35	61	29	63	32	66	33	56	33	56	33	55	32	58	35	64	40	56	35	59	32
17....	61	37	64	41	72	41	64	43	64	41	69	44	71	34	62	48	67	53	64	34	63	47	70	57	67	48	70	54
18....	50	29	51	32	72	43	62	45	60	32	68	39	58	55	62	33	62	36	40	38	47	33	60	34	48	32	62	35
19....	31	25	34	29	43	34	51	37	33	28	49	30	33	32	34	26	36	30	36	27	36	26	36	26	33	22	36	28
20....	27	20	33	21	40	26	44	22	37	18	34	25	27	27	34	24	32	22	31	25	30	22	29	22	24	19	29	16
21....	31	13	26	14	27	22	37	17	23	14	32	20	30	19	26	19	28	18	37	21	32	15	28	18	25	16	26	12
22....	35	13	28	15	27	19	36	14	21	14	26	17	29	19	24	16	28	18	39	17	33	16	34	17	32	16	35	15
23....	36	8	33	19	36	20	38	18	31	21	25	19	37	20	32	21	36	23	43	20	38	19	39	24	34	20	40	19
24....	39	24	40	27	46	25	43	21	38	25	44	24	47	21	40	25	43	28	45	27	47	28	46	28	42	27	46	25
25....	51	28	51	32	57	30	55	25	53	29	57	27	57	26	62	32	55	34	59	32	54	31	55	32	49	29	52	29
26....	52	32	56	42	57	38	59	39	58	29	61	39	61	32	57	40	59	40	61	34	53	41	56	41	55	39	58	42
27....	45	27	48	26	60	40	56	35	50	35	59	29	53	32	55	38	49	34	54	39	47	29	48	34	42	30	46	34
28....	34	20	29	22	56	31	53	28	35	24	48	27	34	31	45	24	34	27	34	26	34	24	35	26	31	23	36	24
Mns..	40.1	23.0	42.9	27.7	55.1	33.8	53.4	31.0	46.1	27.6	51.3	31.1	49.4	30.6	47.1	29.8	46.9	31.4	45.8	27.2	43.6	27.8	47.9	31.9	42.4	28.3	45.3a	28.3a

Date.	Ohio.				Virginia.				Asheville, N. C.		Decatur, Ala.		Tennessee.														Beatyville, Ky.§§	
	Marion.		Waverly.		Big Stone Gap.		Wytheville.						Chattanooga.		Johnson City.		Knoxville.		Nashville.		Palmetto.		Sparta.		Waynesboro.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	43	18	59	32	68	43	64	37	69	43	75	38	65	49	72	43	70	47	69	50	67	51	78	40	75	49	73	29
2....	55	30	62	34	70	47	66	35	68	42	70	55	74	51	68	36	70	45	67	39	64	50	68	50	65	49	60	42
3....	43	24	47	28	73	43	46	32	55	39	73	40	61	44	65	40	61	40	65	36	65	36	65	37	69	40	51	31
4....	46	32	49	26	60	45	53	34	57	36	63	43	62	44	56	30	58	42	52	40	65	41	63	39	58	36	50	34
5....	33	20	52	31	49	34	47	32	55	35	63	40	55	39	48	33	51	38	57	36	58	34	62	35	58	36	48	25
6....	40	21	58	28	50	37	41	29	47	35	65	40	56	45	60	31	58	42	69	38	66	50	65	47	69	50	64	30
7....	36	18	43	30	60	32	60	34	66	35	60	48	56	47	65	44	65	45	60	31	66	34	69	34	57	36	57	32
8....	33	26	53	31	53	45	51	40	53	48	59	48	61	52	55	49	57	49	60	39	59	41	60	45	61	40	48	34
9....	42	15	50	29	52	40	47	34	48	35	57	42	53	42	50	28	49	41	51	36	54	38	50	38	51	36	52	33
10....	32	19	41	22	42	26	37	26	38	27	46	33	46	33	43	26	43	31	44	28	44	25	45	26	45	23	44	23
11....	43	14	39	18	40	27	42	24	40	27	42	32	42	33	46	29	40	31	38	34	38	33	43	30	49	34	44	20
12....	39	27	43	21	44	33	42	31	49	31	49	35	47	34	44	29	47	36	47	38	47	36	59	38	48	37	44	25
13....	44	34	53	38	50	36	56	26	61	28	53	39	56	42	51	31	53	39	59	43	60	42	60	38	60	44	59	26
14....	61	39	73	46	61	46	50	44	68	35	70	45	67	52	65	42	67	45	74	56	73	56	72	37	73	57	75	36
15....	52	39	60	40	67	43	64	36	67	44	73	45	72	50	68	37	66	50	74	45	76	41	72	38	77	37	75	32
16....	58	32	61	28	67	35	43	35	49	37	70	46	59	48	62	41	63	43	72	51	71	49	73	38	73	52	74	30
17....	65	50	72	46	61	39	53	35	67	40	70	50	60	48	55	45	57	49	70	54	67	52	67	51	69	56	73	36
18....	65	33	66	41	54	49	56	40	69	43	74	53	75	46	66	45	70	47	72	46	75	54	70	40	76	56	62	48
19....	34	22	41	29	52	39	40	30	55	37	72	53	69	49	60	40	61	48	47	33	59	43	66	46	56	48	35	32
20....	28	18	32	21	50	28	36	20	40	22	46	34	53	27	40	22	57	28	33	27	43	27	53	28	48	28	29	25
21....	23	11	34	18	29	23	23	16	28	18	47	28	37	25	29	18	34	24	31	20	37	24	32	23	36	21	31	21
22....	32	17	36	14	36	15	30	14	36	14	50	19	43	20	29	18	42	19	39	17	44	16	38	16	43	15	37	14
23....	38	13	41	18	45	26	42	22	47	21	55	20	52	26	45	24	46	27	46	24	48	20	44	19	43	20	47	17
24....	45	27	46	23	49	26	44	27	42	25	60	20	51	32	50	26	49	27	49	27	50	23	46	19	49	19	51	15
25....	52	29	47	27	59	22	57	39	62	29	61	25	61	30	60	26	60	26	58	27	58	28	62	20	58	22	64	18
26....	53	40	51	30	53	36	52	31	61	38	63	37	60	50	48	40	57	39	67	50	60	38	61	35	68	51	65	22
27....	50	32	57	37	60	43	52	43	58	44	56	50	63	52	64	30	63	46	58	40	65	38	61	45	58	43	63	32
28....	39	23	47	27	53	35	43	29	53	35	52	41	55	39	44	31	49	37	45	34	53	34	50	32	46	36	36	27
Mns..	43.7	26.0	50.5	29.0	53.8	35.5	48.1	30.9	53.9	33.7	60.5	39.2	57.5	41.0	53.9	33.4	55.8	38.6	56.2	37.1	58.3	37.6	59.1	35.1	58.5	38.2	54.0	28.2

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 3*—Continued.

Date.	Kentucky.														Indiana.												Philo, Ill.	
	Bowling Green.§§		Earlington.§§		Greensburg.§§		Lexington.		Louisville.		Maysville.§§		Williamsburg.§§		Butlerville.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	74	30	75	34	76	29	67	42	71	42	71	29	62	32	67	36	71	41	63	37	54	28	66	39	69	39	64	35
2....	51	42	48	39	45	39	63	32	66	33	56	38	68	53	65	33	63	30	59	29	60	28	61	27	63	30	57	25
3....	57	29	55	28	56	25	53	31	53	30	55	33	65	29	45	30	46	29	40	30	38	23	40	28	42	23	40	25
4....	50	34	47	33	50	28	47	32	47	36	47	32	54	38	47	34	44	32	40	29	38	26	38	26	42	30	35	24
5....	60	32	51	31	57	30	38	28	43	31	46	27	58	30	40	24	43	32	33	27	31	22	33	26	36	26	31	24
6....	65	39	55	37	67	30	61	32	56	33	62	28	65	43	50	30	46	31	39	25	35	23	36	27	42	31	34	25
7....	56	31	52	30	55	29	50	28	49	31	48	31	63	28	42	26	47	30	37	25	31	22	36	26	42	26	33	22
8....	42	39	40	30	49	49	52	31	47	32	45	31	57	28	46	30	43	33	37	28	35	25	36	23	42	29	33	20
9....	52	32	51	30	52	32	46	27	49	30	50	30	51	38	40	23	48	30	40	20	33	26	28	21	44	21	34	18
10....	45	23	42	24	44	20	34	20	38	22	37	20	43	26	35	16	37	22	31	13	28	9	28	12	35	16	32	12
11....	38	26	44	25	43	21	42	27	42	30	44	20	43	25	40	21	41	32	45	24	44	16	35	26	44	22	45	24
12....	46	33	45	32	46	27	42	34	45	37	44	23	47	30	41	33	43	38	39	34	39	31	38	34	41	33	38	35
13....	61	36	63	38	60	34	54	40	59	43	56	37	60	29	50	39	59	42	50	39	43	35	52	38	55	41	57	37
14....	72	41	69	44	75	41	70	48	67	50	74	41	73	30	62	49	63	48	60	42	56	41	52	44	60	50	57	41
15....	74	38	79	35	72	34	64	39	66	38	63	48	73	30	65	44	71	40	54	40	46	36	49	38	62	35	56	37
16....	77	39	79	36	75	34	66	46	72	45	72	52	67	36	62	42	74	52	57	41	55	35	57	45	57	47	59	41
17....	74	51	75	56	70	35	68	53	72	57	72	43	70	41	70	54	71	57	69	44	64	34	57	41	71	55	71	41
18....	64	54	53	52	62	52	58	35	62	36	53	50	67	51	60	33	59	37	44	36	47	32	52	35	63	35	41	33
19....	36	33	35	32	36	32	35	30	36	28	35	31	43	38	35	28	37	28	36	24	37	27	36	26	37	29	34	24
20....	31	27	29	27	35	25	31	22	29	24	29	23	31	29	30	20	28	23	27	20	28	17	27	20	30	20	26	12
21....	31	19	23	19	30	16	24	17	28	20	30	20	27	23	30	10	28	19	24	16	24	7	20	15	28	10	22	8
22....	39	16	32	18	40	15	30	16	36	20	36	15	38	11	35	14	34	20	34	16	33	12	30	15	32	12	33	16
23....	48	21	45	19	45	15	37	21	43	26	43	19	49	17	40	15	41	24	41	23	40	18	30	19	38	14	40	14
24....	53	24	50	22	50	19	45	25	50	28	50	20	50	19	45	21	47	27	47	25	45	26	34	24	43	22	47	24
25....	57	24	57	25	65	18	53	28	55	33	58	22	55	21	50	27	54	34	52	29	52	26	45	27	50	24	52	23
26....	66	42	63	37	65	35	59	41	60	41	59	25	61	23	55	42	58	39	54	39	51	34	45	40	57	39	50	39
27....	60	34	54	46	57	31	50	35	49	35	54	32	60	25	50	29	47	36	41	29	41	28	41	26	51	30	39	25
28....	39	34	37	37	36	31	35	26	36	27	34	29	39	30	41	25	36	29	31	24	34	24	33	25	40	26	31	25
Mns.	54.2	33.0	51.7	32.7	54.0	29.5	49.1	31.6	50.9	33.5	50.8	30.3	55.0	30.5	47.8	29.1	49.2	33.4	43.7	28.9	41.5	25.4	40.5	28.3	47.0	29.1	42.5	26.0

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 4, LAKE REGION.

Prof. HENRY J. COX, District Editor.

GENERAL SUMMARY.

The mild weather which prevailed generally in Climatological District No. 4 during January, 1911, continued with but slight interruptions throughout February over all portions of the district west of central New York State. In fact, during the past 10 years no higher mean February temperatures have been experienced in any portion of the Lake region west of Ohio. For the district as a whole the precipitation was nearly normal and the average amounts were well within the extreme values of the previous decade, except in the region of western Lake Superior, where the amount of precipitation recorded was greater than that of any previous February since 1901. From the western shore of Lake Michigan to the eastern borders of Lake Ontario there was an excess of cloudiness, and over this region the daily ranges of temperature were correspondingly small, averaging between 12° and 14°; while in the Champlain Valley and around the western end of Lake Superior, where there was the least cloudiness, the mean daily ranges increased to 20.6° and 17.9°, respectively. In the western portions of the district there was somewhat more wind movement than usual, but, although several comparatively severe storms crossed the district, exceptionally high velocities did not, as a rule, occur. The prevailing direction over these sections was northwest, while to the south of the lower Lakes the winds were generally westerly.

The following table summarizes the general conditions in the various portions of the district:

Portions of States lying within District No. 4.	Temperature.		Precipitation.			Number of days.				Prevailing wind direction.
	Mean.	Departure from normal.	Mean.	Departure from normal.	Mean snowfall.	0.01 inch or more precipitation.	Clear.	Partly cloudy.	Cloudy.	
Minnesota	16.8	+6.0	1.38	+0.65	14.2	5	12	9	7	ne.
Wisconsin	25.3	+7.8	2.16	+0.80	8.7	6	11	6	11	nw.
Illinois	32.4	+7.0	2.27	+0.11	10.4	9	8	5	15	sw.
Indiana	30.6	+6.0	1.58	−0.58	7.7	8	8	6	14	nw.
Upper Michigan	20.1	+7.6	1.74	+0.26	15.8	9	7	7	14	nw.
Lower Michigan	26.6	+6.7	2.02	+0.10	9.5	8	6	7	15	nw.
Ohio	31.8	+7.3	1.99	−0.40	8.3	7	7	7	14	w.
Pennsylvania	29.6	+3.5	2.11	−0.74	6.0	12	3	8	17	w.
New York	20.8	+2.0	2.97	+0.62	24.7	13	7	7	14	w.
Vermont	15.0	−3.0	1.84	−0.52	21.7	10	7	8	13	n.

TEMPERATURE.

In the portion of the district lying below the lake chain the mean temperature for the month was below the normal, the deficiency increasing gradually from the highlands of New York State eastward, reaching an average of 3° in the valley of Lake Champlain. From the outlet of Lake Ontario to the western confines of the Lake region mean temperatures higher than the normal values for the respective sections prevailed. Between the eighty-first and ninety-first meridians the excess was more than 6°, and in some localities throughout this region departures of more than +10° from the monthly normal temperatures occurred.

The daily temperature conditions over the extreme northeastern portion of the district contrasted sharply with those which prevailed over the southern and western sections. In the former region the mean daily temperatures remained persistently low throughout the month and several severe cold waves occurred. While the unseasonable weather was broken by four warm periods, the duration of each was so short that the cold may be said to have been practically continuous. At most of the stations in this area the minimum temperatures of the period were recorded on the 6th, when the daily mean temperatures ranged from 21° to 28° below the normal, but at a few stations the lowest readings did not occur until the 16th. The highest temperatures occurred, as a rule, on the 25th and 26th, in connection with the only pronounced warm period of the month which extended over the entire district.

Over the southern and western portions of the Lake region the number of cold days during February, 1911, was unusually small, and it is a remarkable fact that at no station in central and southern Wisconsin, Illinois, Indiana, and Ohio, lying in this district, was a temperature lower than zero recorded at any time during the month, and but few such temperatures occurred in the central and southern portions of Lower Michigan. Throughout these portions of the district the mean daily temperatures were above normal on 21 days of the period, and on the remaining 7 days there were but few instances where the daily deficiencies exceeded 10°.

Over the sections from central New York State westward there were three well-marked warm periods, the 1st–4th, 12th–18th, and 22d–26th. The highest temperatures of the month occurred generally on the 17th, in the sections lying in Indiana and Ohio and at some localities in Lower Michigan and New York. Elsewhere in the two last-named States, and in the Wisconsin, Upper Michigan, and Minnesota sections, the maximums occurred on the 24th–26th, at the culmination of the last warm spell of the month. The lowest temperatures were recorded generally on the 5th in the Minnesota section, and on the 5th or 10th over the Wisconsin section. Throughout the remaining portions of the southern and western sections of the district there was considerable variation in the date of the minimum temperature of the month, the occurrence appearing to have been determined by those local conditions which best conduced to the night radiation of heat.

PRECIPITATION.

The total monthly precipitation did not, on the average, differ from the normal values by 1 inch in any portion of the district. There was a slight deficiency in the Indiana, Ohio, and Pennsylvania sections, and in the Champlain Valley, and a slight excess throughout the remainder of the region. These small departures from the normal values were, of course, the result of a fairly even distribution geographically, the disturbances which gave rise to the precipitation being either of sufficient magnitude to cover most of the region, or taking such a course as to carry the precipitation area entirely across the district.

With the exception of the extreme northwestern sections, the precipitation was frequent throughout the month, with no distinctly marked periods. However, the greatest portion of the monthly amounts fell in the intervals of the 1st–6th and 14th–20th, accompanying the passage of atmospheric disturbances of considerable magnitude. During the 8th–13th, while rain or snow was recorded at many stations over the district, the amounts were generally light, and in but few instances did falls of more than 0.25 inch occur. A similar condition extended from the 23d to the close of the month, during which interval the various falls were even less in amount than those of the period just noted.

Snow.—The precipitation of the month occurred chiefly in the form of snow over the northern portion of the Lake region and in the highlands of New York and Vermont, while over the southwestern sections the respective amounts of rain and snow were nearly equal. The greatest depths of monthly snowfall occurred in the highlands of New York State, where many stations reported amounts of more than 30 inches and several of more than 40. The greatest amount occurring at any station was 47 inches at Wanakena, in St. Lawrence County. Along the southern shore of Lake Superior, also, the total monthly fall reached more than 30 inches at a few stations. From these regions southward and westward the amount of snowfall decreased rapidly, reaching an average of about 6 inches along the southern borders of the district.

At the beginning of February the ground was bare over the southern sections, and to the northward the depths increased gradually to about 20 inches on the Superior shore, while from 3 to 6 inches lay over the Champlain Valley. These depths were greatly increased by the heavy storms of the first week, at the close of which period the southern portions of the district were covered by from 6 to 9 inches of snow, while the measurements in the extreme north and northeast showed more than 30 inches on the ground. Although precipitation continued frequent during the remainder of the month, the large proportion of rain and the high temperatures over the southwestern sections caused a gradual lessening of the depths, and at the close of the last warm period the situation with respect to snow covering was strikingly similar to the condition which prevailed at the beginning of the month.

STORMS.

A number of barometric depressions crossed the district during the month, accompanied by more or less rain or snow and strong winds. Three of these disturbances were of exceptional severity in the sections affected, and caused considerable delays to traffic and communication.

The storm of the 1st–2d swept the extreme northern limits of the Lake region, causing a heavy fall of snow over the Lake Superior region, and much rain, sleet, and snow over the northern counties of New York State. As a consequence, railroad traffic was interrupted to a great extent throughout the whole storm area, while in the northeastern sections some trains were reported to have been stalled in snow-drifted cuts, and telegraph and telephone service suffered much difficulty and delay.

The second disturbance of the month, which approached the Lake region from the southwest and passed over the entire length of the district from the 5th to the 7th, was accompanied by one of the severest snows of recent years. The fall was general over the entire district from Green Bay southward, and eastward to the Vermont limits of the district. The snow, from 5 to 12 inches in depth, driven by strong east to northeast winds, drifted and packed quickly, and in many localities throughout the entire region affected completely tied up traffic by train and street car, while all regular schedules had to be abandoned for the time. Walking during the storm was practically impossible, and in the cities many accidents occurred and some fatalities were reported. The difficulties of transportation and communication were still further increased in many sections by a light mist which followed the fall of snow, and, freezing, crusted the surface badly and coated exposed wires and rails with ice. Press reports from the various parts of the area swept indicate that the effects of the storm were equally severe in all quarters.

On the 13th and 14th another disturbance crossed the district, causing widespread precipitation in all sections west of eastern New York. Over the western Lake Superior region the fall was mostly in the form of snow, but some accompanying rain, mist, and fog, freezing on objects struck, covered the snow surface, sidewalks, shrubbery, etc., with an icy coating one-half inch thick. Over the southern portions of the district the precipitation was entirely in the form of rain, the heavy fall of which served to swell rapidly the streams mentioned in the paragraph on flood conditions. In the eastern sections of the area affected a considerable portion of the precipitation occurred in the form of snow. A few thunderstorms were reported in Upper and Lower Michigan during the passage of this storm. Minor disturbances also passed on the 16th–17th and on the 20th, but they were not severe, and the precipitation was confined chiefly to the extreme eastern portions of the district.

ICE.

During the first two weeks of the month the ice in the rivers and harbors of the upper Lake region increased slowly in thickness, but in the lower Lakes and in the southern portion of Lake Michigan the changes were variable and, as a rule, of small consequence. Thereafter the ice continued to increase over the extreme northern portions of the upper Lakes until the warm weather of the last week set in, but in the other portions of the Lakes there was a decided reduction, and at the end of the period many of the harbors of the lower region were quite free.

In Superior the ice in the harbor at Duluth averaged 33 inches in thickness during the last decade—from 5 to 6 inches thicker than usual—and at one or two points above the harbor proper measurements of 48 inches were made by the United States engineers while making soundings for dredging purposes. At Sault Ste. Marie the river ice reached a maximum thickness of 20 inches on the 27th.

In Lake Michigan the ice in Little Bay De Noquette increased from 16 inches on the 1st to 21 inches on the 28th, but that in Big Bay De Noquette broke up during

the storm of the 14th, the earliest occurrence of the kind in that bay for many years. At the end of the month open water extended from Green Bay to within 3 or 4 miles of Ford River. In the upper end of Green Bay the ice decreased from 9 to 4 inches during the month. Over the southern portions of the lake but little ice was observed.

In Lake Huron the ice in the harbor at Alpena increased from a thin formation at the beginning of the month to 9.5 inches at the close. Floating ice passed through the Detroit River during the entire month, and the river was bank full from the 3d to the 7th, but no solid ice was observed after the 14th.

The eastern end of Lake Erie was covered during the entire month, the maximum thickness at Buffalo reaching 10.5 inches on the 10th. Elsewhere, while floating fields were observed, there was comparatively little harbor ice after the first two weeks. The steamer *Tourist* began making trips from Put-in-Bay to Sandusky on the 7th, thus opening navigation at the latter point.

On Lake Champlain "Broad Lake" closed entirely over on the 4th. Ice harvesting outside the breakwater began on the 19th, and about one-half the required crop had been stored at the end of the period. Measurements of the ice inside the breakwater showed 16.5 inches in thickness on the 27th.

FLOOD CONDITIONS.

The warm weather and rains which followed the heavy snowstorm of the 5th–6th over the Lower Michigan and Indiana portions of the district reduced the snow covering rapidly and caused such a volume of run-off as to raise several of the rivers to almost flood stage. In the Maumee River a maximum stage of 13.6 feet was reported at Fort Wayne, Ind., on the 15th. The following report by Mr. C. F. Schneider, section director at Grand Rapids, Mich., describes the results of the thawing weather in the valleys of the Grand and the Saginaw Rivers:

> The mild, rainy weather which prevailed during the early part of the month carried away practically all of the snow on the ground in the greater part of the Lower Peninsula, and the run-off of melted snow and rain caused a sudden rise in both the Saginaw and Grand River watersheds, resulting for a few days in conditions in both river districts which were quite threatening. A heavy sheet of ice covered the rivers, which was slowly rotted and broken up. The highest water in the lower stretches of the Grand was reached February 18 and 19, and in the Saginaw River on the 21st and 22d.
>
> The greatest danger anticipated on either river was the formation of ice jams. In the breaking up of the ice a large jam, 4 miles long, formed just below the city of Portland, on the Grand River, during the afternoon and night of February 20, damming up the water and causing it to reach flood stage at that place on the morning of February 21. Some damage was done to basements, but vigorous work on the part of the citizens in dynamiting the ice broke the jam on the afternoon of that day, after which the water subsided rapidly.
>
> On the 21st, with the advent of much colder weather, it was feared that frazzle and anchor ice might cause a jam in the flat, low stretches of the river just below Grand Rapids. A large boom was stretched across the river above the city, which thus stopped the running ice and allowed a sheet of surface ice to form. In the meantime the river at Grand Rapids, while below flood stage, was sufficiently high to cause a partial stoppage of the sewers, and on the advice of this office all the sewer pumps were put into use, with the result that no sewer trouble of any kind was experienced.
>
> All danger for the present (March 10, 1911) now seems to be past, as the river stages at all gauging stations, both in the Grand and Saginaw Rivers, are falling and approaching normal. The city authorities of Grand Rapids have shown the utmost confidence in the warnings of the Weather Bureau and have never hesitated at any time to act on its advices.

TABLE 1.—*Climatological data for February, 1911. District No. 4, Lake Region.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Minnesota.																				
Duluth	St. Louis	1,133	40	16.6	+ 3.0	43	23	−13	4	35	1.89	+ 0.90	0.81	17.5	6	7	12	9	ne.	U. S. Weather Bureau.
Floodwood	do	1,257	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. H. Schussler.
Stephens Mine	do	1,500	4	14.4	.....	44	24	−31	5	46	1.01	.....	0.80	10.1	3	12	9	7	w.	Oliver Iron Mining Co.
Two Harbors	Lake	614	17	21.2	+ 8.9	50	24	−17	5	35	1.82	+ 1.01	0.80	21.0	6	15	7	6	ne.	Geo. W. Watts.
Virginia	St. Louis	1,434	17	15.1	+ 7.1	46	24	−26	5	40	0.82	+ 0.04	0.50	8.2	5	15	6	7	nw.	Oliver Iron Mining Co.
Wisconsin.																				
Appleton	Outagamie	795	10	25.8	+ 7.8	55	25	0	5	33	2.33	+ 0.97	1.20	6.0	8	11	5	12	sw.	Wm. O. Thiede.
Ashland	Ashland	647	20	21.8	+ 8.2	45	24†	− 4	10	35	1.93	+ 0.70	0.90	17.0	4	19	3	6	sw.	Sam Wheeler.
Bayfield	Bayfield	635	2	24.0	.....	44	26	− 2	28	32	3.20	.....	1.60	32.0	3	18	4	6	s.	Wm. Miller.
Cecil	Shawano	804	13	23.7	+ 6.3	42	23	− 6	5	32	1.37	+ 0.22	0.32	7.0	6	10	12	6	nw.	Louis W. Schmidt.
Florence	Florence	1,293	20	19.8	+ 7.0	45	24	−16	5	37	2.21	+ 0.82	1.17	9.5	5	13	2	13	nw.	Fred S. Evans.
Fond du Lac	Fond du Lac	800	25	25.7	+ 7.8	49	25	0	10	35	2.34	+ 1.21	1.00	4.0	5	6	9	13	w.	Geo. W. Marshall.
Grand River Locks	Marquette	770	15	26.5	.....	52	25	− 4	10	45	2.14	+ 1.09	1.00	5.0	6	11	6	11	nw.	Jerry Parkinson.
Green Bay	Brown	617	25	24.6	+ 7.4	46	25	2	5	30	1.96	+ 0.36	1.07	3.6	12	4	8	16	sw.	U. S. Weather Bureau.
Iron River	Bayfield	1,096	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Harry C. Hall.
Kewaunee	Kewaunee	590	2	26.4	.....	47	25	5	10	31	3.09	.....	2.00	4.2	5	10	6	12	nw.	Eugene V. Kimball.
Manitowoc	Manitowoc	616	60	27.4	+ 8.0	48	25	4	5†	33	1.43	+ 0.08	0.62	9.0	7	8	6	14	sw.	Johanna Lups.
Menasha	Winnebago	764	14	.....	.....	.....	.....	.....	.....	.....	1.80	+ 1.06	1.06	4.0	5	15	2	11	sw.	Geo. T. Allanson.
Menomonee Falls	Waukesha	842	2	27.0	.....	46	25†	0	10	38	2.75	.....	1.32	8.0	7	11	4	13	nw.	Arthur H. Christman.
Milwaukee	Milwaukee	681	40	28.7	+ 6.8	48	25	4	10	29	1.98	+ 0.09	0.96	8.5	9	9	6	13	nw.	U. S. Weather Bureau.
New London	Outagamie	762	15	24.7	+ 8.9	47	25	− 2	5	38	2.30	+ 1.06	1.30	5.0	4	10	6	12	nw.	August H. Pape.
Oconto	Oconto	590	20	23.8	+ 6.2	45	25†	− 4	5	38	2.00	+ 0.44	0.70	15.0	5	8	9	11	w.	Wm. K. Smith.
Oshkosh	Winnebago	744	22	25.4	+ 7.6	48	24†	− 3	9	36	2.26	+ 1.06	1.15	3.0	5	13	9	6	sw.	Evan Vincent.
Pine River [m]	Waushara	900	16	27.4	+11.3	48	25†	.....	.....	.....	1.82	+ 0.90	1.02	6.0	5	4	6	5	nw.	Geo. H. Carpenter.
Plum Island	Door	588	3	26.2	.....	43	23	7	5	30	1.00	.....	0.60	13.0	2	8	3	17	nw.	Geo. C. Robinson.
Plymouth [§]	Sheboygan	843	1	26.2	.....	49	25	1	10	37	3.20	.....	1.30	11.5	7	8	7	13	w.	Paul O. Feldrappe.
Port Washington	Ozaukee	713	18	28.0	+ 8.5	50	25	2	10	34	3.48	+ 1.75	1.58	10.3	7	10	4	14	nw.	Richard C. Kann.
Racine	Racine	633	14	28.8	+ 6.9	50	24	1	10	35	1.83	+ 0.34	0.73	8.4	7	11	4	13	sw.	Daniel Davis.
Ripon	Fond du Lac	935	1	25.4	.....	47	25†	− 2	10	29	1.55	.....	1.00	5.5	4	12	2	14	nw.	Ripon College.
Sheboygan	Sheboygan	831	12	27.8	+ 8.5	47	24	3	10	34	3.19	+ 1.41	1.50	8.0	5	8	5	15	sw.	Louis C. Meyer.
Sturgeon Bay	Door	600	12	25.0	+ 7.1	48	25	0	11	40	2.21	.....	1.37	8.0	8	10	8	10	nw.	Adam N. Dier.
Superior	Douglas	671	2	17.5	.....	44	25†	−12	5	35	1.00	.....	0.42	9.5	8	15	6	7	ne.	Edward B. Banks.
Waupaca	Waupaca	857	16	23.7	+ 8.2	49	25	− 4	10†	43	1.83	+ 0.90	1.02	4.5	5	13	5	10	sw.	James H. Flagg.
Illinois.																				
Chicago	Cook	824	41	32.4	+ 7.0	58	17	8	10	23	2.27	+ 0.11	0.55	10.4	9	8	5	15	sw.	U. S. Weather Bureau.
Indiana.																				
Auburn	Dekalb	874	15	26.2	+ 3.8	56	17	3	11	29[b]	2.11	− 0.21	0.97	.....	6	7[a]	2[a]	18[a]	sw.	Mrs. Josie B. Kuhlman.
Berne	Adams	849	2	32.8	.....	65	17	10	21	32	1.29	.....	0.45	5.8	8	7	12	9	nw.	Henry M. Reusser.
Elkhart	Elkhart	801	9	32.6	.....	60	17	9	21	23[b]	1.00	.....	0.53	2.5	4	9[b]	5[b]	12[b]	nw.	Dr. Miles Medical Co.
Fort Wayne	Allen	775	15	32.9	+ 7.1	61	17	7	7	37	1.42	− 1.38	0.55	8.8	9	4	9	15	nw.	Orion E. Mohler.
Hammond	Lake	598	20	29.2	+ 6.0	57	17	0	10	36	2.08	− 0.21	0.70	10.0	6	7	8	13	.....	Carson W. Whitney.
Howe	Lagrange	886	6	29.7	.....	59	16	7	21	30	1.41	.....	0.50	6.0	7	13	0	15	w.	James E. Zook.
South Bend	St. Joseph	726	18	29.4	+ 7.1	59	16	7	21	34	1.79	− 0.54	0.55	10.5	12	6	5	17	s.	Henry H. Swaim.
Whiting	Lake	606	2	32.1	.....	56	17	3	10	27	1.56	.....	0.51	10.5	8	15	3	10	sw.	D. H. Boyd.
Michigan—Upper Peninsula.																				
Baraga [f]	Baraga	623	9	15.6	+ 2.9	38	12	3	2†	27	0.80	− 0.09	0.30	8.0	4	9	0	13	w.	D., S. S. & A. Ry.
Bergland	Ontonagon	1,300	1	19.9	.....	51	24	−14	20	40	2.12	.....	0.80	20.0	5	7	6	15	ne.	Frank McMonigal.
Blaney	Schoolcraft	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. S. S. Hackwell.
Calumet	Houghton	1,246	23	20.4	+ 7.1	44	25	1	5	25	2.86	+ 1.30	0.72	32.0	13	5	6	17	w.	F. S. Grierson.
Chatham	Alger	875	10	19.8	+ 6.6	50	24	−15	8	39	1.99	+ 0.08	0.24	19.6	15	1	10	17	nw.	U. P. Experiment Station.
Deer Park	Luce	610	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Sara E. McGaw.
Detour	Chippewa	585	10	19.9	.....	43	25	−10	21	33	1.00	.....	0.50	10.0	....	9	0	19	nw.	G. C. Reed.
Eagle Harbor	Keweenaw	622	12	23.8	+ 8.7	48	25	− 1	7	26	1.68	− 0.41	0.95	16.8	9	7	8	13	e.	John Nolen.
Escanaba	Delta	612	38	21.8	+ 6.5	47	23	0	28	30	2.00	+ 0.66	0.63	14.2	12	3	9	16	nw.	U. S. Weather Bureau.
Ewen	Ontonagon	1,147	10	17.8	+ 5.1	48	24	−17	20	43	1.85	+ 0.58	0.60	18.5	8	6	17	5	nw.	W. B. Hatfield.
Grand Marais	Alger	610	10	20.2	+ 6.9	40	25	2	6	19	1.35	− 0.80	0.30	13.0	10	3	2	23	n.	Mrs. Lena Truedell.
Houghton	Houghton	668	10	22.2	+ 8.3	50	25	− 1	7	29	2.48	+ 0.77	1.27	21.0	13	3	10	15	nw.	U. S. Weather Bureau.
Humboldt	Marquette	1,536	14	19.9	+11.6	51	25	−13	20	39	1.80	+ 1.06	0.80	18.0	4	9	1	18	w.	D., S. S. & A. Ry.
Iron Mountain	Dickinson	1,111	10	22.6	+ 9.9	48	24	− 8	6	37	1.01	− 0.06	0.66	6.5	4	11	9	8	nw.	Chapin Mining Co.
Iron River	Iron	1,504	14	17.4	+ 8.4	48	25	−22	5	46	3.10	+ 2.03	.....	13.0	7	22	3	3	n.	Victor D. Laing.
Ironwood	Gogebic	1,520	8	19.4	+ 7.6	45	24†	− 4	4†	29	0.95	− 0.09	0.52	13.0	6	14	5	9	w.	Prof. J. V. Brennan.
Ishpeming	Marquette	1,536	11	20.1[e]	+10.4	46	24	− 3	20	29	1.23	− 0.66	0.40	11.5	7	4	12	12	n.	Cliv'd Cliffs Iron Co.
Isle Royale	Keweenaw	610	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Malone.
Mackinac Island	Mackinac	831	10	21.0	+ 6.5	43	25	− 5	5†	28	0.97	− 0.69	0.43	5.3	10	4	7	17	e.	M. I. S. P. Commission.
Maple Ridge	Delta	.....	5	20.3	.....	47	24	−10	7	35	2.30	.....	0.60	15.0	7	8	2	18	s.	Herman Johnson.
Marquette	Marquette	734	40	22.9	+ 7.0	52	24	5	5	26	2.40	+ 0.68	1.03	23.9	15	5	10	13	w.	U. S. Weather Bureau.
Menominee	Menominee	581	12	24.7	+10.7	44	23†	− 1	5	34[a]	.....	.....	.....	6.0	....	15	2	11	nw.	C. & N. W. Ry.
Newberry	Luce	773	9	19.9	+ 7.4	44	25	− 5	7	27	1.55	+ 0.14	0.37	.....	12	4	7	17	nw.	John Brown.
Powers	Menominee	868	11	20.1	+ 6.7	46	23†	−12	20	35	.....	.....	.....	.....	....	2	16	10	n.	C. & N. W. Ry.
St. Ignace	Mackinac	593	21	20.6	+ 6.6	41	25	− 5	5†	32	1.60	+ 0.11	0.48	16.0	9	16	4	8	w.	D., S. S. & A. Ry.
Sault Ste. Marie	Chippewa	614	23	17.1	+ 3.7	46	25	−18	5	35	1.48	+ 0.07	0.78	14.2	15	5	3	20	e.	U. S. Weather Bureau.
Thomaston	Gogebic	1,347	14	18.6	+ 9.1	45	25	−13	20	40	1.30	+ 0.01	0.40	13.0	6	3	15	10	w.	D., S. S. & A. Ry.
Victoria	Ontonagon	1,263	1	17.0	.....	54	24	−12	28	39	1.96	.....	0.61	31.5	12	8	7	13	sw.	R. S. Schultz, jr.
Watersmeet	Gogebic	.....	2	18.4	.....	45	24	−11	20	43	1.84	.....	0.50	18.4	12	9	5	14	nw.	B. N. Grant.
Wetmore	Alger	878	14	20.9	+ 9.6	46	25	−10	7	43	.....	.....	.....	.....	.....	7	0	21	n.	D., S. S. & A. Ry.
Whitefish Point	Chippewa	610	21	20.1	+ 7.5	40	25	− 4	6	27	1.98	+ 0.48	0.63	15.8	8	9	3	16	ne.	Robert Carlson.
Michigan—Lower Peninsula.																				
Adrian	Lenawee	770	33	29.4	+ 6.2	57	18	2	11	36	2.09	− 0.37	1.05	6.5	3	8	3	17	nw.	B. F. Gibbs.
Allegan	Allegan	698	20	30.2[b]	+ 8.2	56	17	3[d]	7	39[d]	1.35	− 0.77	0.44	3.0	6	3	14	11	w.	Pere Marquette R. R.
Alma	Gratiot	750	24	27.2	+ 8.3	53	25	4	5	37	2.60	+ 0.91	1.18	T.	4	5	10	13	sw.	P. M. Smith.
Alpena	Alpena	609	38	24.2	+ 6.4	52	25	− 3	21	29	1.97	+ 0.18	0.79	8.9	15	1	14	13	nw.	U. S. Weather Bureau.
Ann Arbor	Washtenaw	930	31	28.0	+ 5.5	58	17	6	11	39	1.74	− 0.34	0.66	7.1	9	8	7	13	nw.	University of Michigan.
Arbela	Tuscola	728	15	27.8	+ 7.7	54	17†	5	6	29	2.27	+ 0.32	0.80	7.0	5	0	7	21	nw.	Wm. Atkin.
Battle Creek	Calhoun	822	27	27.8	+ 3.5	55	17	5	11†	35	2.26	− 0.56	0.85	10.5	5	4	5	19	se.	Elmer E. Sager.
Bay City	Bay	593	15	27.6	+ 9.9	53	25	4	21	36	3.15	+ 1.73	1.50	10.0	3	0	1	27	w.	Pere Marquette R. R.
Benzonia	Benzie	832	15	25.0	+ 5.8	45	25	8	22	28	.....	.....	.....	.....	.....	1	5	22	nw.	Martin S. Joiner.
Berlin	St. Clair	.....	22	26.1[b]	+ 5.8	52	25	1	11	36	1.63	− 0.32	0.60	6.5	11	2	6	13	sw.	R. O. Gould.
Big Rapids	Mecosta	906	15	24.8	+ 8.1	48	25	1	11	39	3.42	+ 1.31	1.17	5.0	8	9	5	14	w.	Charles Gay.
Bloomingdale	Van Buren	.....	7	29.6	.....	57	17	2	7	33	1.99	.....	1.50	4.5	5	6	14	8	nw.	John W. Haven.
Cadillac	Wexford	1,293	2	23.0	.....	45	25	0	21	27	2.59	.....	1.00	10.5	8	6	8	14	n.	A. J. Teed.
Cassopolis	Cass	903	10	30.0	+10.6	57	17	0	21	22	1.40	− 0.91	0.80	11.0	5	9	0	19	sw.	Michigan Central R. R.
Charlevoix	Charlevoix	610	33	22.4	+ 4.9	44	25	− 8	6†	37	0.80	− 0.88	0.30	8.0	3	4	5	19	sw.	Pere Marquette R. R.
Charlotte	Eaton	.....	7	27.8	.....	56	17	4	11†	35	0.98	.....	0.37	5.5	7	4	10	14	w.	City of Charlotte.
Cheboygan	Cheboygan	611	21	19.2	+ 3.2	40	25	− 8	21	33	3.20	+ 1,16	1.10	32.0	....	9	8	11	nw.	E. A. Bouchard.

TABLE 1.—*Climatological data for February, 1911. District No. 4*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Michigan—Lower Peninsula—Continued.																				
Clinton	Lenawee	830	21	29.3	+ 6.6	62	17	− 2	11	43	2.04	+ 0.14	0.63	5.5	6	5	4	19	nw.	David Woodward.
Coldwater	Branch	984	14	30.4	+ 9.4	57	17	6	21	39	1.01	− 0.76	0.46	6.0	6	6	6	16	nw.	L. S. & M. S. R. R.
Concord	Jackson	.....	6	28.6	.....	50	25	3	11	38	1.42	.....	0.70	.....	5	10	14	4	sw.	Dr. W. N. Armstrong.
Croton	Newago	685	3	26.7	.....	48	25	3	11	37	2.25	.....	0.72	3.5	5	0	17	11	w.	G. R. Mus. Power Co.
Detroit	Wayne	730	40	28.7	+ 3.7	59	17	12	21	25	2.54	+ 0.35	1.23	13.3	6	5	8	15	w.	U. S. Weather Bureau.
Durand	Shiawassee	799	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. J. Tobin.
East Tawas	Iosco	590	14	26.5	+ 9.5	46	25	− 2	21	32	3.38	+ 2.15	2.00	28.0	4	18	4	6	w.	Detroit & Mackinac R. R.
Eloise	Wayne	640	14	29.5	+ 9.6	59	17	7	11	31	2.59	+ 0.36	0.99	7.5	8	8	6	14	w.	John Gilmore.
Flint	Genesee	730	22	28.0	+ 8.0	54	17	3	11	39	1.17	− 0.35	0.40	5.0	7	6	7	15	w.	Wm. L. Fisher.
Frankfort	Benzie	589	7	27.1	.....	40	13†	5	7	20	2.40	.....	1.00	10.0	10	8	0	20	e.	Capt. Joe Morency.
Ganges	Allegan	665	2	29.6	.....	56	17	7	7	28	1.85	.....	0.86	6.0	7	5	9	14	sw.	H. H. Hutchins.
Gaylord	Otsego	1,367	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Michigan Central R. R.
Gladwin	Gladwin	794	15	24.5	+ 6.6	50	25	− 2	21	36	0.80	− 0.71	0.40	7.0	2	20	1	7	nw.	Geo. Smith.
Grand Haven	Ottawa	628	30	28.8	+ 4.6	51	16	5	7	27	2.31	+ 0.40	0.90	7.6	13	6	7	15	nw.	U. S. Weather Bureau.
Grand Rapids	Kent	707	22	29.2	+ 3.7	55	17	10	21	31	2.38	+ 0.47	0.93	7.0	11	5	7	16	nw.	Do.
Grape	Monroe	625	21	29.1	+ 5.3	58	17	4	11	34	1.58	− 0.20	0.73	7.5	7	4	10	14	w.	Joseph W. Morris.
Grass Lake	Jackson	989	5	27.4	.....	56	17	3	11†	35	1.42	.....	1.15	2.0	3	9	6	13	nw.	Menzo Conklin.
Grayling	Crawford	1,147	21	24.8	+ 9.1	48	12	− 6	21	39[a]	2.01	− 0.04	0.50	26.5	6	11	15	2	sw.	Dr. D. N. Insley.
Harbor Beach	Huron	635	23	24.8	+ 4.7	52	25	0	10	36	.....	.....	.....	6.0	....	9	0	19	w.	Pere Marquette R. R.
Harrison	Clare	1,150	18	23.2	+ 5.8	47	25	− 2	21	36	.....	.....	.....	.....	....	9	6	13	sw.	Do.
Harrisville	Alcona	616	27	24.2	+ 5.4	51	25	− 3	21	32	2.19	− 0.05	1.00	22.0	11	5	11	12	nw.	Dr. D. W. Mitchell.
Hart	Oceana	698	19	28.0	+ 5.1	45	17	0	6	32	2.15	+ 0.10	0.95	12.0	5	4	11	13	sw.	Pere Marquette R. R.
Hayes	Huron	620	21	26.5	+ 7.8	50	25	5	11	35	2.55	+ 0.77	0.95	15.0	7	3	13	12	e.	C. F. Lipprandt.
Highland	Oakland	830	19	.....	.....	.....	.....	.....	.....	.....	0.62	− 1.48	0.47	.....	2	.....	.....	.....	.....	A. D. DeGarmo.
Hillsdale	Hillsdale	1,150	14	28.2	+ 9.0	56	17	8	21	30	1.73	− 1.06	1.05	6.5	6	7	5	16	nw	Prof. C. L. Herron.
Holland	Ottawa	610	5	27.0	.....	49	25	− 6	7	30	2.36	.....	1.26	6.0	9	1	12	15	nw.	City of Holland.
Howell	Livingston	924	19	25.3	+ 4.5	50	17	5	11	29[c]	.....	.....	.....	4.0	....	6	15	7	sw.	Frank Sharp.
Ivan	Kalkaska	.....	22	22.1	+ 5.4	45	25	− 5	21	44	1.10	− 0.64	0.28	10.0	10	5	11	12	nw.	O. L. Giddins.
Jackson	Jackson	927	14	28.7	+ 8.0	59	17	4	6	27	1.25	− 0.60	0.62	10.5	6	9	11	8	w.	City of Jackson.
Jeddo	St. Clair	667	22	26.4	+ 6.4	51	25	6	21	31	1.13	− 0.61	0.45	4.5	7	3	5	20	nw.	William Brice.
Kalamazoo	Kalamazoo	955	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kalamazoo Asylum.
Lansing (Agr. College)	Ingham	820	47	27.6	+ 5.2	54	17	7	11	35	1.77	− 0.12	0.74	7.7	13	6	8	14	w.	U. S. Weather Bureau.
Lansing (Capitol)	....do	881	24	28.3	+ 6.7	51	25	7	21	34	1.39	− 0.47	0.56	6.5	9	5	5	18	sw.	State Board of Health.
Lapeer	Lapeer	827	12	30.3	+11.5	54	25	7	11	35	0.90	− 1.20	0.25	4.0	4	3	17	8	sw.	Michigan Home.
Ludington	Mason	586	13	28.2[c]	+ 7.3	45	25	2	7	26[c]	0.87	− 0.81	0.50	7.0	3	6	10	9	e.	Pere Marquette R. R.
Luther	Lake	1,028	1	24.8	.....	47	25	− 1	7	42	2.41	.....	1.27	6.5	11	7	3	18	nw.	John W. Nichoson.
Mackinaw	Cheboygan	592	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. R. & I. R. R.
Mancelona	Antrim	1,121	15	22.1	+ 7.3	43	25	− 2	5	28	1.80	− 0.09	0.60	18.0	7	12	1	15	w.	Do.
Manistee	Manistee	600	14	26.0	+ 6.6	48	26	5	7	28	3.86	+ 1.55	2.80	4.0	3	7	2	19	nw.	Pere Marquette R. R.
Midland	Midland	604	12	28.4	+ 9.7	52	25	3	21	34	0.90	− 0.29	0.60	6.0	3	8	3	17	ne.	PereMarquette.
Montague	Muskegon	660	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Gerard A. Whitebeck.
Morenci	Lenawee	811	4	29.7	.....	57	17	2	11	37	1.87	.....	0.62	10.0	8	6	2	20	nw.	George J. Tripp.
Mount Clemens	Macomb	615	11	26.6	+ 6.6	56	17	0	21	40	1.59	+ 0.06	0.80	8.4	5	3	13	12	nw.	Water Work.
Mount Pleasant	Isabella	826	12	25.1	+ 7.4	50	26	3	27	39	2.80	+ 1.14	1.40	8.0	4	16	0	12	w.	Pere Marquette R. R.
Muskegon	Muskegon	587	15	28.0	+ 8.0	50	17	0	7	30	2.00	+ 0.29	0.60	7.0	4	3	8	17	n.	G. R. & I. R. R.
Old Mission	Traverse	858	17	24.0	+ 5.7	43	25	5	21	26	1.79	+ 0.22	0.82	8.3	7	5	9	14	sw.	E. O. Ladd.
Olivet	Eaton	934	21	27.6	+ 5.7	53	17	8	11	30	1.35	− 0.67	0.50	6.0	8	7	1	20	s.	Prof. G. A Knapp.
Omer	Arenac	616	12	26.0	+ 9.4	50	25	1	5	38	2.40	+ 1.07	1.20	24.0	3	3	12	13	ne.	Detroit & Mackinaw R. R.
Onaway	Presque Isle	826	8	19.0	+ 4.4	49	25	− 8	21	26	.....	.....	.....	.....	.....	15	3	10	w.	Do.
Ovid	Clinton	760	21	27.3	+ 7.0	54	17	6	5	36	1.58	− 0.12	0.41	.....	7	10	2	14	w.	Dr. B. L. Bates.
Owasso	Shiawassee	731	14	28.7[a]	+ 8.8	54	17	7	21	30[a]	1.90	+ 0.17	0.80	8.2	8	3	15	9	s.	Owasso Sugar Co.
Petosky	Emmet	660	21	24.2	+ 7.4	46	25	− 1	5†	29	1.20	− 0.43	0.40	8.0	9	4	1	23	w.	G. R. & I. R. R.
Plymouth	Wayne	725	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Pere Marquette R. R.
Pontiac	Oakland	935	11	28.1	+ 4.6	53	25	8	11	30	2.34	+ 0.90	0.94	12.5	6	10	6	12	nw.	Fred W. Shaw.
Port Austin	Huron	618	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Pere Marquette R. R.
Port Huron	St. Clair	639	36	27.2	+ 5.2	53	25	9	21	30	1.76	− 0.39	0.76	8.7	9	6	5	17	nw.	U. S. Weather Bureau.
Reed City	Osceola	1,033	14	28.6	+13.3	48	25	10	7	23	.....	.....	.....	.....	.....	5	13	10	sw.	Pere Marquette R. R.
Roscommon	Roscommon	1,141	7	21.9	.....	46	25	−11	5	40	1.39	.....	0.75	13.5	10	1	16	11	w.	State Forestry Commission.
Saginaw	Saginaw	601	9	28.9	.....	53	25	7	6†	34	3.50	.....	1.35	7.5	9	8	9	11	sw.	Postmaster.
Saginaw, W. S	....do	601	16	28.1	+ 7.6	54	25	6	5†	35	2.59	+ 0.32	1.28	5.0	10	8	7	13	sw.	Robert B. Hudson.
St. James	Charlevoix	681	5	21.9	.....	40	25†	2	5†	25	4.11	.....	1.25	18.0	8	14	1	13	sw.	Rev. James Malone.
St. Joseph	Berrien	593	24	31.0	+ 4.2	60	17	11	21	30	2.72	+ 0.18	1.40	14.0	6	8	3	17	sw.	City of St. Joseph.
Sandusky	Sanilac	790	2	26.6	.....	48	14	0	6	35	.....	.....	.....	.....	.....	3[b]	9[b]	14[b]	w.	Pere Marquette R. R.
Saranac	Ionia	639	16	28.6	+ 5.4	55	17	0	11	35	1.97	− 0.31	0.90	6.0	5	6	2	20	nw.	John Wallington.
South Haven	Van Buren	585	15	23.8	+ 2.2	44	14	8	7	20	2.45	+ 0.80	0.60	4.5	6	11	6	11	nw.	Mrs. M. F. De Diemat.
Stanton	Montcalm	880	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	City Stanton.
Thornville	Lapeer	975	34	27.6	+ 4.7	49	17	8	5†	28	2.30	+ 0.22	0.40	9.5	9	4	3	21	se.	Dr. J. S. Caulkin.
Traverse City	Grand Traverse	588	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. R. & I. R. R.
Vassar	Tuscola	641	10	28.2	+10.2	52	25	7	11	34	1.62	− 0.07	0.84	4.0	2	4	11	13	nw.	Pere Marquette R. R.
Wasepi	St. Joseph	842	14	26.7	+ 5.2	50	25	− 5	21	38	2.10	− 0.02	0.48	8.0	8	8	0	20	nw.	Chas. A. Palmer.
West Branch	Ogemaw	973	7	21.1	.....	47	12	− 5	18	37	2.80	.....	1.40	28.0	3	8	8	12	s.	Mich. Central R. R.
Woodlawn	Montmorency	.....	9	20.2	+ 5.8	48	25	−12	28	37	3.10	+ 1.43	1.00	24.5	14	7	2	19	sw.	T. C. Mathews.
Ypsilanti	Washtenaw	736	26	27.9	+ 5.0	57	17	2	11	36	2.59	+ 0.13	0.98	9.0	9	1	22	5	nw.	Orin J. Bemiss.
Ohio.																				
Akron	Summit	1,081	24	31.0[d]	+ 5.2	58	14	13	22	34[a]	1.49	− 1.09	0.49	10.0	8	5	2	21	w.	Prof. C. R. Olin.
Benton Ridge	Hancock	800	18	33.7	+ 8.6	63	17	13	11†	27	1.95	− 0.38	0.50	7.0	7	6	10	12	sw.	J. W. Powell.
Bowling Green	Wood	670	30	31.6	+ 8.6	62	17	9	11	31	1.76	− 0.64	0.82	5.0	4	8	8	12	sw.	G. C. Houskeeper.
Bucyrus	Crawford	1,000	17	33.7	+10.0	58	16	13	11	37[a]	3.04	+ 1.02	0.65	13.0	9	6	5	17	sw.	James R. Hopley.
Cleveland (1)	Cuyahoga	762	40	31.8	+ 5.0	62	17	15	11	33	1.81	− 0.80	0.49	10.0	14	5	5	18	sw.	U. S. Weather Bureau.
Cleveland (2) §	....do	754	14	32.0	+ 7.8	62	17	14	11	29	1.86	− 0.13	0.52	8.0	8	5	3	20	w.	Rev. F. L. Odenbach, S. J.
Conneaut	Ashtabula	675	1	30.1	.....	60	17	10	21†	27	1.86	.....	0.62	8.5	8	6	5	17	sw.	E. L. Ransom.
Defiance	Defiance	712	17	31.6	+ 8.2	60	17	3	11	37	0.98	− 1.07	0.41	3.0	4	9	6	13	w.	John F. Hielshorn.
Findlay	Hancock	776	22	31.5	+ 5.3	63	17	6	9	40	2.02	− 0.98	0.78	8.0	5	13	11	4	nw.	Dr. E. A. Moser.
Fremont §	Sandusky	628	9	33.2	.....	63	17	12	11	29	1.57	.....	0.55	7.0	5	8	6	14	sw.	E. Stanley Thomas.
Hedges	Paulding	725	17	31.0	+ 8.2	62	17	7	11	31	1.94	− 0.16	0.88	6.0	4	14	5	9	w.	Charles Stutzman.
Hillhouse	Lake	997	18	30.1	+ 8.3	60	17	9	11†	28	1.85	− 0.75	0.54	5.5	6	8	4	16	w.	J. W. Doncaster.
Hiram	Portage	1,260	31	30.2	+ 6.1	59	17	9	21	28	2.58	− 0.20	0.65	10.0	8	3	9	16	nw.	Prof. G. H. Colton.
Hudson	Summit	1,153	50	30.6	+ 7.2	60	17	8	21	24	1.95	− 0.55	0.60	6.5	6	6	5	17	sw.	Dr. W. I. Chamberlain.
Lima	Allen	875	12	33.6	+ 8.3	65	17	12	21	31	2.87	− 0.88	0.89	11.0	7	15	7	6	w.	Miss Ollie DeLong.
Medina	Medina	944	23	31.6	+ 7.9	62	17	6	11	34	2.66	+ 0.69	0.80	11.0	6	6	4	18	w.	F. W. Clark.
Montpelier	Williams	880	19	30.9	+ 8.3	58	17	7	11	34	2.07	− 0.45	0.80	13.0	7	7	4	17	w.	G. L. Laser.
Napoleon	Henry	680	24	32.4	+ 9.3	60	17	9	11	31	1.25	− 0.88	0.37	9.0	4	9	5	14	nw.	A. C. Senter.
New Bremen	Auglaize	1,038	18	34.3	+ 9.8	67	17	13	10†	25	1.08	− 0.89	0.54	5.5	4	9	10	9	nw.	Miss Lillian Grothaus.
North Royalton	Cuyahoga	1,000	18	30.8	+ 7.7	60	17	10	11	31	2.66	+ 0.23	0.86	6.0	6	10	5	13	w.	W. S. Edgerton.
Norwalk	Huron	719	25	31.4	+ 7.9	64	17	9	11	41	2.46	+ 0.34	0.50	9.5	11	3	13	12	w.	Dr. Albert Sheldon.
Oberlin	Lorain	855	36	32.2	+ 6.4	63	17	7	11	33	2.22	− 0.13	0.64	10.5	7	7	7	14	w.	Prof. F. F. Jewett.

TABLE 1.—*Climatological data for February, 1911. District No. 4*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Ohio—Continued																				
Ottawa	Putnam	720	16	32.4	+ 7.4	63	17	9	9†	32	1.28	− 0.73	0.85	10.0	3	0	16	12	w.	Prof. J. T. Maldlow.
Sandusky	Erie	629	34	31.4	+ 4.3	62	17	15	11	32	1.93	− 0.46	0.74	7.9	11	5	6	17	w.	U. S. Weather Bureau.
Tiffin	Seneca	775	29	32.7	+ 6.1	63	17	15	11	25	1.97	− 0.78	0.80	8.0	6	6	11	11	nw.	Prof. T. H. Sonnedecker.
Toledo (1)	Lucas	769	40	31.4	+ 4.6	62	17	13	9	27	2.22	+ 0.26	1.07	7.2	8	6	10	12	sw.	U. S. Weather Bureau.
Toledo (2) §	do	606	7	30.6	.....	61	17	5	6	27	1.86	.....	0.92	4.2	7	6	6	16	n.	J. A. Krance, S. J.
Upper Sandusky	Wyandot	854	28	34.4	+ 7.0	64	17	12	21	29	2.50	− 0.38	0.60	11.0	6	4	11	13	sw.	Robt. E. Tracht.
Vickery	Sandusky	588	18	31.9	+ 8.2	62	17	6	11	35	1.84	− 0.07	0.65	6.0	8	6	7	15	w.	John W. Barr.
Wauseon	Fulton	780	39	29.9	+ 5.2	59	17	7	11	34	2.09	− 0.83	0.91	11.6	14	2	11	15	w.	Thomas Mikesell.
Wellington	Lorain	856	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. D. Warren.
Willoughby	Lake	649	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. J. Richardson.
Pennsylvania.																				
Erie	Erie	658	38	29.6	+ 3.5	59	17	11	5	32	2.11	− 0.74	0.82	6.0	12	3	8	17	w	U. S. Weather Bureau.
New York.																				
Adams Center	Jefferson	540	20	21.4	+ 2.3	46	26	− 6	3	36	4.34	+ 1.30	0.48	38.0	20	4	9	15	n.	A. E. Cooley.
Angelica	Allegany	1,340	28	25.6	+ 4.2	47	17	1	23	30	2.94	+ 1.14	0.78	25.0	13	0	6	22	w.	C. P. Arnold.
Appleton	Niagara	270	20	26.8	+ 3.4	47	17	6	6	32	1.05	− 1.12	0.25	7.9	10	0	9	19	nw.	H. A. Van Wagoner.
Auburn	Cayuga	715	42	25.6	+ 1.0	47	17†	5	6	25	2.01	− 0.11	0.52	20.0	8	19	3	6	n.	A. H. Underwood.
Avon	Livingston	585	16	25.1	+ 3.4	46	17	0	21	27	1.78	+ 0.03	0.30	14.0	13	1	9	18	.....	W. G. Markham.
Blue Mountain Lake	Hamilton	1,750	11	.....	.....	.....	.....	.....	.....	.....	5.12	+ 2.08	0.77	34.5	18	8	5	15	w.	B. F. Merwin.
Brockport	Monroe	537	15	25.6	+ 3.8	45	17	5	6	26	2.94	+ 0.44	0.67	28.0	14	2	12	14	w.	W. H. Lennon.
Buffalo	Erie	767	60	26.5	+ 2.5	45	26	7	6	28	3.95	+ 1.10	1.36	25.8	17	1	12	15	w.	U. S. Weather Bureau.
Canton	St. Lawrence	448	17	13.1	− 4.9	49	26	−24	6	47	2.97	+ 0.40	0.78	22.4	15	10	4	14	ne.	Do.
Cape Vincent	Jefferson	246	6	16.9	.....	41	27	− 9	3	32	2.10	.....	0.57	.....	7	12	9	7	e.	Verne M. Rice.
Carvers Falls	Washington	243	13	16.5	+ 0.9	46	25	−20	6†	50	2.16	− 0.16	0.81	23.0	5	15	3	10	n.	Washburn Fancher, C. E.
Chazy	Clinton	151	11	12.8	− 2.3	43	25†	−20	16	36	1.82	+ 0.33	0.80	19.0	4	21	1	6	n.	W. R. North.
Dannemora	do	1,490	6	15.1	.....	48	26	−10	6	42	2.86	.....	0.76	28.0	15	9	5	14	w.	Dr. W. N. Thayer.
Elba	Genesee	500	12	24.0	+ 3.8	48	17	1	6	29	5.00	+ 2.12	1.00	41.0	12	9	7	12	sw.	Jos. S. Wilford.
Fayetteville	Onondaga	530	10	24.4	+ 4.4	50	26	− 8	6	43	1.84	− 0.14	0.69	15.2	12	10	6	12	w.	Dana H. Wells.
Gabriels	Franklin	1,729	9	13.6	.....	50	26	−26	6	53	2.24	.....	0.78	17.5	19	12	3	13	nw.	Gabriels Sanatarium.
Harkness	Clinton	622	9	15.0	.....	47	26	−14	3	48[a]	1.11	.....	0.51	12.0	9	18	5	5	w.	J. W. Harkness.
Hemlock Lake	Livingston	900	13	25.8	+ 5.4	47	17	26	3†	30	1.87	+ 0.76	1.10	11.5	2	6	6	16	s.	D. H. Westbury.
Hunt	do	1,321	12	28.8	+ 6.2	50	17†	6	3	29	5.26	+ 3.44	1.56	26.0	8	2	12	14	sw.	W. S. Barager.
Ithaca	Tompkins	928	33	27.1	+ 2.0	51	25	5	6	30	4.34	+ 2.47	0.86	32.8	19	2	9	17	nw.	U. S. Weather Bureau.
Keene Valley	Essex	1,000	13	.....	.....	55[b]	....	−16[b]	6	65[b]	1.92	− 0.42	0.52	17.5	11	.....	.....	.....	.....	E. R. Wells.
King Ferry	Cayuga	.....	11	.....	.....	.....	.....	.....	.....	.....	2.37	+ 0.53	0.70	21.4	11	5	6	17	se.	Lucius A. Goodyear.
Lake George	Warren	350	14	19.0	+ 1.2	52	25	−15	6	36	2.18	− 1.29	0.94	21.5	10	9	8	11	ne.	Charles Forsell.
Lake Placid Club	Essex	1,864	3	10.4	.....	50	26	−24	6	55	5.09	.....	0.66	38.0	17	6	11	11	nw.	Henry Van Hoevenberg.
Le Roy	Genesee	920	21	26.0	+ 5.0	48	17	5	6	28	3.64	+ 0.36	1.06	31.0	19	3	3	22	nw.	F. W. Ball.
Lockport	Niagara	650	24	25.5	+ 2.2	44	17	2	6	25	1.70	− 0.67	0.40	14.6	11	3	2	23	sw.	J. E. Wakeman.
Lowville	Lewis	900	44	17.0	− 2.5	45	25†	−16	6	49	1.97	− 0.74	1.00	.....	10	8	7	13	w.	Chas. J. Rice.
Moira	Franklin	200	11	13.4	− 1.8	49	26	−17	6	44	4.15	+ 0.96	0.80	41.5	14	13	6	9	ne.	C. E. McBride.
Nehasane	Herkimer	1,750	3	14.2	.....	46	26	−25	6	60	3.85	.....	0.80	39.3	21	7	10	11	w.	L. W. Brown.
North Lake	do	1,822	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ogdensburg	St. Lawrence	175	27	15.6	− 1.5	45	26	−22	6	52	4.13	+ 2.00	1.10	31.2	11	10	12	6	e.	State Hospital.
Old Forge	Herkimer	1,733	3	16.7	.....	45	25	−23	6	58	4.46	.....	0.80	45.1	16	3	9	16	s.	Mrs. S. W. Nelson.
Oswego	Oswego	335	41	24.4	+ 0.5	47	17	0	6	32	2.89	+ 0.32	1.22	21.8	17	1	9	18	nw.	U. S. Weather Bureau.
Otto	Cattaraugus	1,410	7	28.2	.....	50	17	0	22	38	1.31	.....	0.68	.....	5	12	3	13	.....	W. M. Winke.
Palermo	Oswego	460	52	.....	.....	.....	.....	.....	.....	.....	2.51	− 0.52	0.60	20.1	17	10	9	9	se.	E. B. Bartlett.
Perry City	Schuyler	1,038	31	25.3	+ 3.9	49	25	0	22	32	3.46	+ 1.34	0.88	21.2	14	0	5	23	nw.	W. H. Jeffers.
Philadelphia	Jefferson	485	5	18.0	.....	48	26	−17	3	45	2.01	.....	0.61	14.5	13	4	14	10	ne.	E. D. Babcock.
Potsdam	St. Lawrence	300	35	14.2	− 3.9	51	27	−21	6	35	3.82	+ 1.91	0.83	8.4	12	18	0	10	ne.	A. E. Sutherland.
Roquette Lake	Hamilton	.....	3	17.4	.....	47	26	−22	6	54	4.06	.....	0.61	43.0	20	6	1	21	nw.	R. J. Dunning.
Rochester	Monroe	523	82	26.7	+ 2.8	48	17	6	6	28	3.20	+ 0.37	1.08	30.0	20	1	9	18	w.	U. S. Weather Bureau.
Romulus	Seneca	719	19	.....	.....	46[i]	25†	8[i]	3	....	3.80	+ 2.11	0.60	34.0	11	....	....	....	.....	John H. Coryell.
Shortsville	Ontario	740	12	25.1	+ 3.3	48	17†	− 7	23	41	1.14	− 0.44	0.30	11.4	7	5	10	13	s.	C. H. Latting.
Skaneateles	Onondaga	.....	16	.....	.....	.....	.....	.....	.....	.....	2.31	− 0.11	0.40	.....	20	....	....	....	.....	Edward Conron.
Syracuse	do	597	9	24.4	+ 0.6	50	26	1	6	33	2.66	+ 0.86	0.86	22.9	21	3	8	17	nw.	U. S. Weather Bureau.
Ticonderoga	Essex	344	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tupper Lake	Franklin	1,522	11	15.0	+ 1.6	49	26	−29	6	61	3.32	+ 0.80	0.50	24.0	13	14	1	13	w.	Rev. Aaron W. Maddox.
Volusia	Chautauqua	1,167	12	27.0	+ 6.6	53	17	1	23	41	2.20	− 0.40	0.50	12.0	10	4	6	18	sw.	Benjamin Breads.
Wanakena	St. Lawrence	.....	1	15.0	.....	45	26	−23	5	49	4.90	.....	0.88	47.0	12	6	7	15	sw.	J. Otto Hamele.
Watertown	Jefferson	737	19	20.4	+ 0.9	52	26	− 7	3	39	2.24	− 0.32	0.45	20.0	17	6	6	16	.....	H. P. Dunlap.
Wedgewood	Schuyler	1,430	22	24.4	+ 2.2	46	25†	4	6	25	3.65	+ 1.42	0.60	37.0	18	8	7	13	nw.	Orlando F. Corwin.
Westfield	Chautauqua	837	15	28.7	+ 6.0	58	17	8	6†	27	3.08	+ 0.84	0.61	7.0	13	.....	.....	.....	.....	John R. Rogers.
Youngstown	Niagara	.....	9	.....	.....	.....	.....	.....	.....	.....	1.69	.....	0.74	19.8	8	0	21	7	w.	B. V. Brookins.
Vermont.																				
Burlington	Chittenden	404	4	14.6	− 3.3	45	26	−11	16	39	1.39	+ 0.02	0.62	13.8	10	5	9	14	nw.	U. S. Weather Bureau.
Cornwall	Addison	507	18	16.6	− 2.6	45	25†	−15	16	35	2.70	+ 0.54	1.00	27.0	8	12	4	12	n.	C. H. Lane.
Enosburg Falls	Franklin	601	20	13.4	− 3.6	49	26	−28	6	48	1.82	− 1.20	0.64	23.5	10	11	4	13	nw.	L. H. Pomeroy.
Northfield	Washington	876	25	13.6	− 3.6	50	26	−18	16	48	1.61	− 0.65	0.57	28.5	14	5	9	14	n.	U. S. Weather Bureau.
Wells	Rutland	750	20	16.8	− 2.1	42	26	− 8	6	31	1.69	− 1.30	0.53	15.5	7	4	12	12	n.	E. R. Pember.

TABLE 2.—*Daily precipitation for February, 1911. District No. 4, Lake Region.*

Stations.	River basins.	Day of month.																									Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Minnesota.																														
Duluth	Lake	.80	.01	T.	T.	....	.03	.22	....	T.	....	....	T.	.02	.81	T.	.....	.....	T.	....	....	....	....	....	....	....	....	....	....	1.89
Floodwood	do	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
Stephens Mine	do	.80	....	.01	....	....	T.	T.	....	....	....	....	....	....	.20	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	1.01
Two Harbors	do	.60	.20	....	....	.05	....	.07	....	....	....	....	....	....	.80	.10	.....	.....	....	....	....	....	....	....	....	....	....	....	....	1.82
Virginia	do	.50	.07	....	....	....	....	.05	....	....	....	....	....	.02	.18	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	0.82
Wisconsin.																														
Appleton	Fox	.01	.05	....	....	T.	.33	T.	T.	....	....	....	T.	.02	1.20	....	.30	.12	....	T.	T.	....	....	....	....	....	.30	....	....	2.33
Ashland	Lake	*	.70	.23	....	....	T.	.10	....	....	....	....	....	....	.90	....	.....	.....	....	....	T.	....	....	....	....	....	....	....	....	1.93
Bayfield	do	*	1.60	....	....	....	....	.80	....	....	....	....	....	....	.80	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	3.20
Cecil	Fox	.02	....	....	....	....	.38	T.	....	....	....	....	....	T.	.32	....	.30	.15	....	....	....	....	....	....	....	....	.20	....	....	1.37
Florence	Menominee	....	.44	....	....	....	....	T.	.20	....	....	....	....	T.	.40	....	*	1.17	....	....	....	....	....	....	....	....	....	....	....	2.21
Fond du Lac	Fox	T.	T.	....	T.	T.	.30	T.	....	....	....	....	T.	T.	.80	....	.30	.70	....	T.	T.	....	....	....	....	....	.24	....	....	2.34
Grand River Locks	do	....	.06	....	....	....	.07	....	....	....	....	....	T.	T.	1.00	....	.45	.26	....	T.	....	....	....	....	....	....	.30	....	....	2.14
Green Bay	Lake	.05	.03	....	....	.05	.20	.02	....	T.	....	....	.01	.30	.78	T.	.27	.08	....	T.	T.	....	....	....	....	.12	.05	....	....	1.96
Iron River	do	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
Kewaunee	do	....	....	....	....	T.	.32	....	....	T.	....	....	....	....	2.00	....	*	.50	....	T.	....	....	....	....	....	.27	....	....	....	3.09
Manitowoc	do	....	.03	....	T.	T.	.62	....	....	....	....	....	....	*	.45	*	.15	....	....	T.	T.	....	....	....	....	....	.18	....	....	1.43
Menasha	Fox	....	.02	....	....	T.	.25	....	....	....	....	....	....	....	1.06	....	.42	....	....	T.	T.	....	....	....	....	....	.05	....	....	1.80
Menominee Falls	Lake	T.	....	....	....	T.	.65	....	....	T.	....	....	T.	.08	1.32	....	.23	.18	....	.05	T.	....	....	....	....	....	.24	....	....	2.75
Milwaukee	do	T.	....	T.	....	.49	.47	T.	....	T.	....	....	T.	.06	.44	T.	.13	.30	....	.04	T.	....	....	....	....	.02	.03	....	....	1.98
New London	Fox	....	....	....	....	T.	.20	....	....	....	....	....	T.	....	1.30	....	.50	....	....	....	....	....	....	....	....	....	.30	....	....	2.30
Oconto	Lake	....	....	....	....	.60	.20	T.	....	....	....	....	....	.40	.70	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	2.00
Oshkosh	Fox	....	....	....	....	T.	.20	....	....	....	....	T.	T.	1.15	....	.30	.28	....	T.	T.	....	....	....	....	....	.33	....	....	....	2.26
Pine River	do	....	....	....	....	*	.50	....	....	....	....	....	....	....	1.02	....	*	.22	....	T.	....	....	....	....	....	....	.08	....	....	1.82
Plum Island	Lake	T.	T.	....	T.	T.	.40	T.	....	T.	....	T.	T.	T.	T.	.60	T.	T.	T.	T.	T.	....	....	T.	....	....	T.	....	....	1.00
Plymouth	do	T.	.01	....	....	T.	.98	....	T.	T.	....	....	T.	.07	1.30	....	.34	.34	....	T.	T.	....	....	....	....	....	.16	....	....	3.20
Port Washington	do	....	....	....	....	....	1.00	....	....	....	....	....	....	....	1.58	....	.10	.65	....	.02	.01	....	....	....	....	....	.12	....	....	3.48
Racine	do	....	T.	....	....	T.	.40	....	....	....	....	....	T.	.03	.73	....	.12	.38	.15	T.	.02	T.	....	....	....	....	T.	....	....	1.83
Ripon	Fox	....	....	....	....	T.	.20	....	....	....	....	....	....	*	1.00	....	T.	....	....	T.	T.	....	....	....	....	....	....	....	....	1.55
Sheboygan	Lake	T.	T.	....	T.	T.	.80	....	T.	T.	....	....	....	T.	1.50	....	.16	.53	....	T.	T.	....	....	....	....	....	.20	....	....	3.19
Sturgeon Bay	do	T.	T.	....	....	.02	.08	T.	.01	T.	T.	....	....	....	1.37	.02	.26	.14	....	T.	T.	....	....	....	....	....	.31	....	....	2.21
Superior ‖	do	.18	.42	....	....	....	.07	.01	.02	....	....	....	....	.05	.15	.10	T.	T.	....	....	....	....	....	....	....	....	....	....	....	1.00
Waupaca	Fox	.02	....	....	....	....	.09	....	....	....	....	....	....	....	1.02	....	.42	....	....	....	....	....	....	....	....	....	.28	....	....	1.83
Illinois.																														
Chicago	Lake	....	T.	T.	....	.71	.18	T.	....	T.	....	....	T.	.28	T.	....	.11	.55	.01	.10	.04	....	....	....	....	.29	T.	....	....	2.27
Indiana.																														
Auburn	Maumee	....	....	....	.01	....	.97	.06	....	....	T.	....	....	T.	....	.63	T.	T.	.05	....	....	T.	....	....	....	....	.39	....	....	2.11
Berne	do	....	....	T.	.08	T.	.45	....	....	....	....	....	....	....	.26	....	.05	.03	.33	....	.07	T.	....	....	....	....	.02	....	....	1.29
Elkhart	St. Joseph	....	....	....	....	....	....	....	....	....	.10	....	....	....	.53	....	....	.22	T.	....	.15	....	....	....	....	....	T.	....	....	1.00
Fort Wayne	Maumee	....	....	T.	.06	....	.55	....	....	....	T.	....	....	.01	.30	.01	T.	.13	.30	....	.05	T.	T.	....	....	....	.01	....	....	1.42
Hammond	Lake Michigan	....	....	T.	....	.15	....	....	....	....	....	....	....	....	....	....	.38	.12	....	....	.23	....	....	....	....	....	.70	.50	....	2.08
Howe	St. Joseph	....	....	....	....	....	.01	.50	....	....	....	....	.10	....	.20	....	.10	....	.40	....	.10	....	....	....	....	....	....	....	....	1.41
South Bend	do	T.	....	....	.10	....	.55	.02	T.	....	.03	....	....	.01	.39	.01	....	.02	.45	....	.08	.04	....	....	....	....	.09	....	....	1.79
Whiting	Lake Michigan	....	....	T.	....	.20	.50	....	....	....	....	....	.01	T.	.10	....	T.	.51	....	.13	....	.05	....	....	.06	....	....	....	....	1.56
Michigan—Upper Peninsula.																														
Baraga	Lake	....	....	....	....	....	....	.10	.30	....	....	....	....	.30	.10	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	0.80
Bergland	Ontonagon	.50	.80	T.	T.	....	....	.10	T.	.10	T.	....	....	....	.62	....	.....	.....	T.	....	....	....	....	....	....	....	T.	....	....	2.12
Blaney	Manistique	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
Calumet	Lake	.72	.56	T.	.16	.04	T.	.06	T.	.02	.32	....	....	....	.26	.52	....	.08	....	.06	.04	....	....	....	....	....	.02	T.	T.	2.86
Chatham	do	.14	.17	.04	....	....	.12	.08	.14	....	....	....	....	....	.23	.12	.02	.06	.12	.24	....	....	.14	....	....	....	.23	.14	....	1.99
Deer Park	do	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
Detour	St. Marys	*	.40	....	....	....	.10	....	....	....	....	....	....	....	*	.50	.....	.....	....	....	....	....	....	....	....	....	....	....	....	1.00
Eagle Harbor	Lake	....	.95	T.	.11	T.	T.	.06	....	T.	.05	....	....	T.	.25	.10	....	.05	T.	T.	.05	....	....	....	....	....	.06	....	....	1.68
Escanaba	do	.34	.20	....	.01	T.	.08	.10	T.	.04	....	....	.05	T.	.60	.09	.26	.03	T.	T.	T.	....	T.	....	....	....	.20	....	....	2.00
Ewen	Ontonagon	.60	.20	T.	T.	....	T.	.20	....	.20	T.	....	T.	T.	.50	....	....	.05	T.	T.	.05	T.	....	....	....	....	.05	T.	T.	1.85
Grand Marais	Lake	.20	....	....	.30	....	....	....	.15	....	....	....	....	....	.05	....	.10	....	.20	T.	.10	.05	....	....	....	....	.15	.05	....	1.35
Houghton	do	1.19	.08	.04	.09	.02	T.	.01	....	.04	.07	....	T.	....	.77	....	T.	.06	T.	.01	.01	....	....	....	....	....	.09	T.	T.	2.48
Humboldt	Escanaba	.70	.80	....	T.	....	....	....	....	.10	....	....	....	....	.20	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	1.80
Iron Mountain	Menominee	.07	.19	....	....	....	.09	T.	....	T.	....	....	....	....	.66	....	T.	....	....	....	....	....	....	....	....	....	T.	....	....	1.01
Iron River	do	....	....	....	T.	T.	....	.30	T.	.20	....	....	....	.20	.80	....	.40	....	.80	....	T.	....	....	....	....	....	....	....	....	3.10
Ironwood	Lake	.04	.14	....	T.	....	....	....	....	T.	....	....	....	T.	.52	....	.....	.....	.10	....	T.	.10	....	....	....	....	.05	....	....	0.95
Ishpeming	Escanaba	.20	.40	....	....	....	....	....	....	.05	....	....	....	....	.40	....	.....	.....	.10	....	.03	.05	....	....	....	....	....	....	....	1.23
Isle Royale	Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
Mackinac Island	do	.07	.12	.01	.01	....	.06	T.	....	.07	T.	....	....	.05	.13	T.	.43	....	.02	....	T.	T.	T.	....	....	....	T.	T.	....	0.97
Maple Ridge	do	.40	.20	....	....	....	....	....	....	.10	....	....	....	....	.60	....	.20	.60	....	....	.20	....	....	....	....	....	....	....	....	2.30
Marquette	do	.85	.21	....	.05	.02	T.	.02	....	.10	.01	....	T.	....	.63	....	.19	.10	.05	.04	.10	.01	....	....	....	....	.02	....	....	2.40
Menominee	Menominee	....	T.	....	....	....	.30	T.	....	T.	....	....	....	....	.30	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
Newberry	Tequamenon	.26	.33	....	.13	T.	.02	T.	T.	.05	T.	T.	T.	T.	.09	T.	T.	.37	.04	.05	T.	T.	.02	T.	T.	T.	.17	T.	.02	1.55
Powers	Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
St. Ignace	do	.07	.48	....	T.	....	.10	....	.04	.10	....	....	....	.08	.30	.08	T.	.35	T.	....	....	....	....	....	....	....	....	....	....	1.60
Sault Ste. Marie	St. Marys	.50	.28	....	.07	....	....	T.	.02	.11	.01	....	....	....	.01	.01	.08	.09	.02	....	....	.02	....	....	....	....	.02	.12	.12	1.48
Thomaston	Lake	.20	.40	....	....	....	....	.05	....	.05	....	....	....	....	.40	....	.....	.....	....	....	....	....	....	....	....	....	.20	....	....	1.30
Victoria	Ontonagon	.53	.28	T.	.18	....	....	.05	T.	.12	.03	....	....	....	.61	.02	....	.07	T.	T.	.01	....	....	....	....	....	.05	.01	....	1.96
Watersmeet	do	.18	.40	T.	....	....	.10	.06	T.	.06	....	....	....	.02	.50	T.	T.	.15	....	T.	.04	T.	.12	....	....	....	.09	T.	.12	1.84
Wetmore	Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
Whitefish Point	do	.29	.63	....	.25	....	....	....	T.	.05	.20	....	....	....	.....	.....	.....	.42	....	....	....	....	....	....	....	....	.12	.02	....	1.98
Michigan—Lower Peninsula.																														
Adrian	Raisin	....	.22	....	.05	T.	.60	....	....	....	....	....	....	....	1.05	....	.17	....	....	....	....	....	....	....	....	....	....	....	....	2.09
Allegan	Kalamazoo	....	....	....	....	....	.30	....	....	T.	....	....	T.	.11	.44	....	T.	.31	.08	....	....	....	....	....	....	....	.11	....	....	1.35
Alma	Saginaw	....	....	....	....	....	.62	....	....	T.	T.	....	....	T.	1.18	....	T.	.08	....	....	....	....	T.	....	....	....	.12	....	....	2.60
Alpena	Lake	.17	.07	T.	.02	T.	.19	.02	.01	.04	T.	T.	....	.03	.52	T.	.61	.18	.02	T.	T.	T.	.01	....	....	.03	.05	T.	....	1.97
Ann Arbor	Huron	....	....	T.	.05	....	.40	....	.01	T.	....	....	....	T.	.66	.04	....	.18	.21	T.	.15	T.	T.	....	....	....	.04	....	....	1.74
Arbela	Saginaw	....	T.	T.	T.	....	.80	T.	....	.13	....	....	....	....	.66	....	....	....	.52	....	....	....	T.	....	....	....	.16	....	....	2.27
Battle Creek	Kalamazoo	....	....	....	T.	....	.81	T.	T.	T.	....	....	T.	T.	.85	T.	T.	.20	.25	....	.15	T.	....	....	....	....	T.	....	....	2.26
Bay City	Saginaw	....	....	....	....	....	1.50	T.	T.	....	....	....	....	....	.75	....	.90	....	....	....	....	....	....	....	....	....	....	....	....	3.15
Benzonia	Betsie	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	....
Berlin	Clinton	....	.01	T.	T.	.31	....	....	....	T.	.01	....	....	.07	.60	.02	....	.38	.08	.01	.13	T.	T.	....	....	.01	....	T.	....	1.63
Big Rapids	Muskegon	....	....	....	....	....	.40	....	T.	.10	T.	....	.70	.08	1.17	.07	....	.62	....	....	T.	....	....	....	....	....	.28	....	....	3.42
Bloomingdale	Lake	....	....	....	....	....	.20	....	....	.05	....	....	T.	T.	1.50	T.	T.	....	.20	T.	T.	T.	....	....	....	....	.04	T.	....	1.99
Cadillac	Manistee	.05	....	....	....	....	.50	....	.05	T.	.07	....	....	....	1.00	....	.75	....	....	....	T.	....	....	....	....	....	.05	.12	....	2.59
Cassopolis	St. Joseph	....	.05	....	....	....	.80	....	....	....	....	....	....	....	.....	.....	.....	.05	....	....	.30	....	....	....	....	....	.20	....	....	1.40
Charlevoix	Lake	....	T.	....	.30	....	.30	....	....	....	....	....	....	....	.20	....	.....	.....	....	....	....	....	....	....	....	....	....	....	....	0.80
Charlotte	Kalamazoo	....	....	....	....	....	.30	....	....	....	....	....	T.	T.	.13	.02	....	.37	.10	....	.01	.05	....	....	....	....	T.	T.	....	0.98
Cheboygan	Cheboygan	*	.40	....	T.	....	....	1.10	....	....	....	....	....	....	*	.90	T.	....	....	....	....	....	T.	....	....	....	.80	....	....	3.20
Clinton	Raisin	....	T.	....	T.	....	.55	....	....	....	....	....	....	....	.63	.05	....	.18	.33	....	T.	....	....	....	....	....	.30	....	....	2.04
Coldwater	St. Joseph	....	....	....	T.	....	.46	....	....	....	....	....	....	.02	.20	....	.....	.05	.22	....	.06	....	T.	....	....	....	T.	....	....	1.01
Concord	Kalamazoo	....	T.	....	....	....	T.	....	....	....	....	....	T.	T.	.70	....	....	.12	.25	....	.10	T.	....	....	....	....	.25	....	....	1.42
Croton	Muskegon	....	....	....	T.	T.	.30	....	T.	T.	.05	....	....	T.	1.00	....	T.	.72	.18	....	....	T.	T.	....	....	....	T.	....	....	2.25

TABLE 2.—*Daily precipitation for February, 1911. District No. 4*—Continued.

Stations.	River basins.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total.
Michigan—Lower Peninsula—Continued.																														
Detroit	Detroit		T.	.06	T.	T.	1.23	T.	T.	T.	T.			T.	.84		.05	.32		T.	.04		T.				T.	T.	T.	2.54
Durand	Saginaw						1.00								2.09	T.	.30	T.									T.			3.38
East Tawas	Lake	.08					.99	.05			T.			T.	.92	.04		.12	.33	T.	.08		T.	T.			T.		T.	2.59
Eloise	Rouge		T.	T.	.06		.37		.01					.02	.40			.30	.03		.04									1.17
Flint	Saginaw					T.	.20			.20	.10				1.00		.10			.05	.10	.10	.05			.50			2.40
Frankfort	Betsie						.46							.04	.68	.04	.10	.43	.10											1.85
Ganges	Lake																													
Gaylord	Cheboygan						.40	T.							.40															0.80
Gladwin	Saginaw																													
Grand Haven	Grand		T.		T.	.30	.42	.01		.04	01		.01	.04	.89		.08	.39			.01	.01	T.			.10	T.		2.31
Grand Rapids	....do				T.	.22	.47	.07		T.	.01	T.	.01	.05	.90		.11	.40		T.	.02	T.	T.		T.	.12	T.		2.38
Grape	Raisin		.01		.01		.25								.73			.16	.37	T.	.05		T.				T.		1.58
Grass Lake	Grand						T.			T.					1.15	.09			.18	T.	T.	T.	T.					T.	1.42
Grayling	Au Sable	.30			.50		.40			.11	T.				.50	.20		T.	T.					T.				T.	2.01
Harbor Beach	Lake						.40	.20																						
Harrison	Saginaw						.40								.20															
Harrisville	Lake	.20	.02		.05		.40	.20							1.00	.10	.02		T.	.05	10	.05								2.19
Hart	Pentwater		T.				.80			.10	.20				.95		.10			T.	T.									2.15
Hayes	Pigeon						.80	.10							.40			.95		.10	.10					.10				2.55
Highland	Huron													.15	.47															0.62
Hillsdale	St. Joseph						.50		T.	T.			T.	T.	1.05		T.	.06	.08	T.	.02	.02	T.					T.	T.	1.73
Holland	Lake						.55				T.		T.	.04	1.26	.04	.11	.22	.11	T.		.01					.02			2.36
Howell	Saginaw						.10							T.				.10	.05		1.00					T.				
Ivan	Manistee	T.	.08		T.		.10		.10	.10	.10			T.	.28		T.	.04	T.	.10		T.	.10				.10	T.		1.10
Jackson	Grand						.12	T.							.62	.06		.10	.22		.13	T.	T.					T.		1.25
Jeddo	St. Clair						.25				.10			T.	.45	T.	.08	.15		.05	.05							T.		1.13
Kalamazoo	Kalamazoo																													
Lansing (Agr. College)	Grand					.20	.54	.01		.02				.07	.47		.13	.22	.03	.01	.02	.01					.04			1.77
Lansing (capitol)	....do						.40			T.	T.		T.	.02	.56	.02	.01	.21	.11		.01	T.	T.				.05			1.39
Lapeer	Saginaw		T.					.20	.20	T.				T.	.25			.25	T.	T.							T.			0.90
Ludington	Pere Marquette		T.				.50								.17						T.	.20					T.			0.87
Luther	Manistee		.04				.23		.03	.01	.04			.05	1.27	T.	.04	.53									.16	.01		2.41
Mackinaw	Lake																													
Mancelona	....do	.20	T.	.10		.20				.20	.40	T.		T.	.60				T.		T.	T.	T.				T.	.10		1.80
Manistee	Manistee						.40			T.					2.80		.66				T.	T.								3.86
Midland	Saginaw		T.				.60		T.	T.			T.	T.	.20	T.	T.	.10		T.							T.			0.90
Montague	White																													
Morenci	Maumee				.08		.60								.62			.10	.36		.02	.08					.01			1.87
Mount Clemens	Clinton				.80		.04		T.					.27	.31	T.	T.	.17			T.		T.					T.		1.59
Mount Pleasant	Saginaw						.80								1.40	.10	.50													2.80
Muskegon	Muskegon						.60	.20		T.				T.	.60	T.	T.	.60	T.		T.	T.								2.00
Old Mission	Lake						.28			.11	.04				.82		.17	.20									.17			1.79
Olivet	Kalamazoo						.35		.01	.01	T.		T.	T.	.50			.25	.17		.04	.02					T.			1.35
Omer	Lake						.60			.60				T.	1.20															2.40
Onaway	Cheboygan														1.60															
Ovid	Grand	.12	T.				.26	.23	T.		T.			T.	.41	.35		.12	.09		T.						T.			1.58
Owasso	Saginaw						.80		T.					.02	.78	.08	.01	.13		T.	.03						.05			1.90
Petoskey	Lake	.10	.10	T.	.01	T.	.02			.10	.10				.40		.27	.10									T.			1.20
Plymouth	Rouge																													
Pontiac	Clinton		.05				.94			T.				.03	.93	T.		.11		T.	.28		T.				T.			2.34
Port Austin	Lake																													
Port Huron	St. Clair		T.	T.	T.	T.	.76	T.	T.	T.	T.		T.	.06	.43	T.		.42	.01	.01	.04		.02				.01	T.	T.	1.76
Reed City	Muskegon						.20			.05																					
Roscommon	Au Sable		.01		.02		.45		.05	.03	.02				.75		.01	.02										.03		1.39
Saginaw	Saginaw	T.	T.		.05	T.	.70			.05	.05			.10	1.35	.10		1.00		T.	T.		T.				.10	T.		3.50
Saginaw W. S	....do		.01	T.	T.	T.	.36	T.	.03	.01	.02		T.	.02	1.28	.03	T.	.81	T.	T.	T.		T.				.02	T.		2.59
St. James	Lake		.65				1.25			.25				.50	.70	.10		.36									.30			4.11
St. Joseph	St. Joseph						1.40							T.	.12		T.	.70	.30		.10	.10								2.72
Sandusky	Lake					.50																	T.							
Saranac	Grand						.55								.90	.08		.30									.14			1.97
South Haven	Lake						.40						T.	.60	T.		.60	.40	.05				T.				.40			2.45
Stanton	Grand																													
Thornville	Saginaw						.10	.35	.30						.40	.25		.40	.20		.12						.18			2.30
Traverse City	Lake																													
Vassar	Saginaw						T.				T.				.78			.84		T.							T.			1.62
Wasepi	St. Joseph						.75		T.				.08	.02	.42		.04	.24			.48						.07			2.10
West Branch	Lake						1.20	.20		T.					1.40															2.80
Woodlawn	Au Sable	.10	.25		.20		.30		.10	.05	.05			T.	1.00	.10		.50	T.	.05	T.		.10				.10	.20		3.10
Ypsilanti	Lake		.08		.05		.50							T.	.98	.03		.34	.35		.15						.11			2.59
Ohio.																														
Akron ‖	Lake	.04			.30	T.	.49	T.			T.	T.		T.	.30	.15			.20		.30	.01	T.	T.			T.			1.79
Benton Ridge	Maumee				.45		.50				T.				.30			.08	.42		.15	.05	T.						T.	1.95
Bowling Green	Lake			T.	.22		.60								.82			.12	T.		T.	T.							T.	1.76
Bucyrus ‖	Sandusky	.20			.65		.60	.09							.25				.60		.40	.10		T.			.15			3.04
Cleveland (1)	Lake		T.	.14	.09	.04	.45	T.	T.	.01	.01		T	T.	.24	.01	.01	.30	.14	T.	.34	.01	.02				T.	T.	T.	1.81
Cleveland (2)	....do	T.		.16	.13		.52			T.					.21	.01		.27	.19		.37		T.				T.			1.86
Conneaut	....do				.18		.36				.03				.62	.02		.13	.38		.14	T.	T.							1.86
Defiance	Maumee			T.			.38		T.		T.		T.	T.	.41			.05	.14	T.	T.	T.	T.	T.	T.		T.			0.98
Findlay ‖	....do						.60								.78			.03	.41		.20	T.	T.							2.02
Fremont	Sandusky				.15		.55				T.				.44				.32		.11		T							1.57
Hedges	Maumee						.60								.88				.28											1.94
Hillhouse	Lake				.25	T.	.36	T.			T.		T.	T.	.54	T.		.15	.35	T.	.20	T.	T.	T.			T.	T.		1.85
Hiram	....do		T.		.56		.65	T.	.01		T.		T.		.62			.17	.06		.46	T.		.05			T.		T.	2.58
Hudson	....do				.05		.20									.50		.60			.40	.20								1.95
Lima	Maumee	T.			.37		.89		.30		T.						T.	T.	.46	T.	.20	T.					.05	.60		2.87
Medina	Lake				.80	T.	.45								.55			.15	.26		.45									2.66
Montpelier	Maumee		T.	T.	.20		.80						T.	T.	.35		T.	.14	.20	T.	.10		T.				.28			2.07
Napoleon	....do	.20					.35								.37			T.	.33		T.	T.	T.							1.25
New Bremen	....do			T.			.54								.17		T.		.22	.15										1.08
North Royalton	Lake				.60	.20									.86			.20	.40		.40									2.66
Norwalk ‖	....do	.15		.27		.50	.28							.08	.20	.12		.06	.40		.30				.10					2.46
Oberlin	....do			T.	.32		.64		.15						.37			.35	.12	T.	.27	T.	T.					T.		2.22
Ottawa	Maumee			T.		T.	.85						T.	T.	.37		T.	.06	T.			T.					T.			1.28
Sandusky	Lake			.09	.06	.60	.14				T.			.03	.49		.03	.20	.20	.02	.07	T.	T.				T.		T.	1.93
Tiffin	Sandusky			T.	.30	T.	.80	T.		T.	T.		T.	T.	.33		T.	.16	.28	T.	.10	T.	T.				T.		T.	1.97
Toledo (1)	Maumee		T.	.06	T.	.18	.89	T.	T.		T.		T.	T.	.57		.02	.22	.23	T.	.05	T.	T.				T.		T.	2.22
Toledo (2)	....do				.06	T.	.92	T.	T.		T.			T.	.45	.07	T.	.11	.23	T.	.02	T.	T.				T.		T.	1.86
Upper Sandusky	Sandusky				.60		.60		T.		T.		T.		.30	T.		T.	.50	T.	.40	.10	T.				T.			2.50
Vickery	Lake				.14		.65							T.	.47	.04		.10	.36		.07	T.					.01			1.84
Wauseon	Maumee			.02	.01	.01	.90		T.				.01	.02	.47	.02		11	.39	T.	.06	.05	.01	T.			.01		T.	2.09
Wellington	Lake																													
Willoughby ‖	....do																													
Pennsylvania.																														
Erie	Lake		T.	T.	.26	T.	.14	T.	.01	T.	.03		T.	.07	.80	.01		.36	.19	T.	.20	T.	.62				.02	T.	T.	2.11

TABLE 2.—*Daily precipitation for February, 1911. District No. 4*—Continued.

Stations.	River basins.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
New York.																														
Adams Center	Lake Ontario		.48		.46	T.	.30	.40	.30	.20	.35	.20	.30	.20	.10	.05		.15	.10		.20	.10	.20	.10			.11	.04	T.	4.34
Angelica	Genesee	.02			.38		.40	.10	T.		.12	T.			.78	.23	T.	.38	.11	.03	.30	.04	.05	T.			T.		T.	2.94
Appleton	Lake Ontario		.10		.25		.05	.15	T.		.06			.06	.10	.08		.10	T.		.10	T.	T.				T.	T.	T.	1.05
Auburn	Oswego				.22		.27	.31	T.					T.	.24	.11		.27		.07	.52	T.					T.	T.	T.	2.01
Avon	Genesee	.02			.30	T.	.17	.26	.10					T.	.18	.18	.02	.22		.08	.15		.05		T.		T.		.05	1.78
Blue Mountain Lake	Raquette		.57		.35		.20	.70	.40	T.	.20	.10	.10	.10	.10			.77	.10	.20	.10	T.			.63	.20	.10	.20		5.12
Brockport	Lake Ontario		.03	T.	.42	.03	.30	.52	T.					.05	.67	.28		.18	.03	.21	.15							.02	.05	2.94
Buffalo	Lake Erie	T.	.05	.05	.22	.01	.92	.02	.01	.02	.12		.02	.08	1.32	T.		.61	.01	T.	.16	.09	.24	T.	T.	T.	T.	T.	T.	3.95
Canton	Grass		.78		.64		.16	.42	.11		.03	.02	.16	.06	T.			.14	T.		.02		.33		.06		.02	.02		2.97
Cape Vincent	St. Lawrence	.57	T.	.20			.54		T.	.32	T.	.18						.04			T.	.25		T.		T.			2.10
Carvers Falls	Lake Champlain		.35		.75			.81	.15					.10																2.16
Chazy	do		.50					.80	.10																.42					1.82
Dannemora	do	.01	.52		.40	.17		.76	.08		.05	.10	.20					.09	T.		.03	T.	.18	.02	.20	T.	T.	.05		2.86
Elba	Lake Ontario		T.		.20	.20	.30	.60	T.		.30		.20	T.	.60	1.00		.60	T.	T.	.40	T.	T.	.30	T.		.30	T.	T.	5.00
Faust	Raquette	.26		.18		.11		.16	.14		.14		.12					.27	.21		.07		.15			.41	.08			2.30
Fayetteville	Oswego		.04		.12	.08	.08	.69	.04			T.	T.	.08	.04			.32			.31	.02	.02		T.			T.	T.	1.84
Gabriels	St. Regis		.78	.09	.06	.07		.20	.08		.05	.08	.11	.07	.05			.11	.03	.05	.07	T.	.10	.05	.14		T.	.05	T.	2.24
Harkness	Lake Champlain		.51	.01	.03			.31	.02		.02		.12					.03			.06									1.11
Hemlock Lake	Genesee				T.		.77				T.			T.	1.10					T.							T.			1.87
Horse Shoe	St. Lawrence	.44	T.	T.	.05	.13	.07	.05			.30	.18	.02					.07					.05			.04			.03	1.43
Hunt	Genesee				.74		.60				.20				1.00			1.56			.60		.20				.36			5.26
Ithaca	Oswego		.01	.30	.08	.02	.80	.06	.01		T.		T.	.06	.79	.05		.55	.01	T.	.62	.15	.18	T.	.14		.06	.19	.26	4.34
Keene Valley	Ausable		.52	T.	.11	T.	T.	.48	.18		.06	.08	.18	.09	.02			.08	T.		.12									1.92
King Ferry	Oswego				.53		.17	.23	.08						.70			.23			.31	.02	.03		.03				.04	2.37
Lake George	Lake Champlain		.21	.12	.94		.61	.14	.02		T.	.03			.02			.03			.06									2.18
Lake Placid Club	Ausable, W. Br		.66	.26	.31	.10		.23	.31		.46	.51	.09	.12				.41	T.		.12		.46	.32	T.		.12	.35	.26	5.09
Le Roy	Genesee	T.	.05		.35	.04	.30	.43	.12		.09			.11	1.06	.10		.33	.09	.02	.25	.02	.11		.07		.05	T.	.05	3.64
Lockport	Lake Ontario	T.	.04		.24	T.	.14	.28	.02					T.	.40	.25		.18	.02		.12		T.				T.	T.	.01	1.70
Lowville	Black		.10		1.00		.10			.10		.20		.10				.02			.08	T.	.15	.12						1.97
Moira	St. Lawrence		.80		.60			.60	.10	.05	.05	.25	.60	.05	.30			.05			T.		.40	.10	.20		T.	T.		4.15
Nehsane	Black		.80	T.	.45	.15	.01	.28	.10		.15	.15	.22	.03	.04			.22	.03	.03	.12	.02	.30	.07	.40		.05	.23	T.	3.85
North Lake	do																													
Ogdensburg	St. Lawrence	T.	1.10		.61	.04		.90	.30		.03		.30	.55	T.			.08			T.		.12					.10		4.13
Old Forge	Black		.59		.60	.25		.40	.15		.43	.21	.16		.03			.11		.08	.14		.80	.14	.35		.02			4.46
Oswego	Lake Ontario	.02	.11	T.	1.22	T.	.15	.16	.06		.02	T.	.16	.04	.20	.02		.07	T.	T.	.25	.06	.04		.30		.01	T.	T.	2.89
Otto	Lake Erie		T.		.24		.03				.06			T.	.30	T.		.68										T.		1.31
Palermo	Lake Ontario		.50	.03	.60	T.	.10	.20	.10		T.	.04	.13	.10	.10	.23		.06	T.	T.	.10	.10	.03		.05		.04	T.	T.	2.51
Perry City	Oswego				.55		.28	.26	.09		T.				.48	.40		.54	.25	.02	.30	.05	T.		.14			.02	.08	3.46
Philadelphia	St. Lawrence		.61		.14	T.	T.	.37	.11		.15		.13	T.	.02		.15				.03		.05		.15		.04	.06		2.01
Potsdam	Raquette	.02	.70	.83	.63		.45	.39		.24			.24		.17								.06	.08				.01		3.82
Raquette Lake	do		.61	.07	.42	.30		.50	.16		.13	.12	.22	.08	.11			.09	.10	.11	.16		.13	.10	.50			.11	.04	4.06
Rochester	Genesee		.06	.02	.20	.04	.85	.23	.09		.02	T.	.04	.09	.77			.16	T.	.02	.31	.01	.10		.04		.03	.05	.07	3.20
Romulus	Oswego				.10		.60	.60							.40	.40		.40		.20	.50	.30	T.	.20	.10					3.80
Shortsville	do		T.		T.		.30	.11	T.		T.				.18					.10	.30		.05	T.					.10	1.14
Skaneateles	do		T.	.24	.40	T.	.18	.06	.05	T.	.07	.03		.08	.10	.09	.03	.20	.18	.20	.12	.05	.07	.11	.02	T.	.03	T.		2.31
Syracuse	do	T.	.01	T.	.49	.16	.50	.36	.06		.04	.03	.02	.06	.19	.07		.11	.01	.03	.29	.01	.08	T.	.09		.02	.03	T.	2.66
Ticonderoga	Lake Champlain																													
Tupper Lake	Raquette		.30		.20	.25		.40	.20			.47		.10				.50		.18	.08		.15	T.	.41			.08		3.32
Volusia	Lake Erie	.04	T.		.32	T.	.30	T.			.26			.06				.35	.50		.20	T.	.12			.05			2.20
Wanakena	Oswegatchie		.60	.25	.20		.50	.10			.50			.24				.35			.15		.81		.88		.32			4.90
Wards Creek	Raquette	.14	.21	.29		.26			.12			.21	.09	.05				.06			.32			.22		.18		.19		2.34
Watertown	Black		.45		.08	.02		.27	.06		.14	.06	.14					.25	.03	.02	.06	.06	.14	.06	.27		.13			2.24
Wedgewood	Oswego	.02	T.	T.	.49	T.	.40	.30	.02		.05	.03			.60	.33		.28	.12	.08	.47	.06	.15	.06	.17			T.	.02	3.65
Westfield	Lake Erie		T.		.36	T.	.17	.11			.26	.08	.03	.06	.71	T.		.61	.31	T.	.21		.13	T.			.04	T.		3.08
Youngstown	Lake Ontario			.09			.51						T.	.09	.74	.07		.04			.08	T.	.07							1.69
Vermont.																														
Burlington	Champlain		.62	T.	.16		.03	.31	.06	T.	.02	T.	.06	T.				.01	T.	T.	.08	T.	T.	T.	.04	T.				1.39
Cornwall	do		.40		.40		T.	1.00	.20		T.	T.	.10	.10				T.			.30				.20					2.70
Enosburg Falls	do		.64	.28	.09			.19	.04		.02		.29					.13	T.		T.		.08		.06					1.82
Northfield	do		.39	.05	.33		.10	.47	.02	T.	T.	.01	.03	.02				.06	T.		.05	T.	.02	.01	.05			T.		1.61
Wells	do		.29	.08	.53			.34			.21			.03				.21												1.69

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 4, Lake Region.*

Date.	Duluth, Minn.		Wisconsin.						Chicago, Ill.		Fort Wayne, Ind.		Michigan—Upper Peninsula.										Michigan—Lower Peninsula.					
			Florence.		Green Bay.		Milwaukee.						Escanaba.		Ewen.		Houghton.		Marquette.		Sault Ste. Marie.		Alpena.		Battle Creek.		Cadillac.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	25	5	26	8	32	21	39	33	45	33	48	18	29	18	30	13	26	21	24	20	18	14	28	21	35	20	25	18
2....	18	− 3	26	13	31	21	39	25	43	29	50	30	22	16	25	9	21	13	22	17	18	3	27	12	30	22	26	9
3....	24	− 6	26	12	32	20	34	26	38	27	36	24	29	21	27	19	29	17	28	19	25	5	27	13	31	19	25	6
4....	3	−13	27	2	31	6	33	16	36	23	35	32	27	3	25	− 1	21	4	25	5	27	− 4	27	11	31	22	26	12
5....	14	−11	14	−16	17	2	24	12	26	22	33	20	15	1	13	−13	15	3	15	5	8	−18	15	4	24	12	13	5
6....	18	11	16	5	21	10	26	18	28	22	30	18	13	6	24	4	19	11	14	7	12	− 2	18	14	21	12	15	8
7....	19	10	20	− 4	24	7	28	18	31	22	29	7	23	5	21	−15	22	− 1	23	6	14	− 6	24	13	22	8	25	5
8....	25	3	33	8	28	11	33	18	34	19	39	24	24	11	32	8	33	20	33	17	31	12	34	19	33	18	31	15
9....	20	− 1	28	15	27	16	24	15	30	14	39	15	29	16	22	9	30	19	30	20	28	16	29	15	28	10	28	15
10....	15	−12	18	7	20	3	20	4	22	8	29	13	24	11	12	− 5	19	7	20	14	22	0	30	19	22	15	25	15
11....	24	13	30	3	39	9	43	14	43	22	45	8	33	6	20	9	25	6	31	13	22	8	39	11	40	5	37	12
12....	27	18	29	− 1	35	26	39	34	39	37	38	29	32	10	31	−12	31	18	31	19	24	18	38	26	36	32	36	32
13....	32	27	34	24	37	33	36	33	43	37	41	34	36	29	37	21	33	30	34	28	27	20	34	29	38	32	35	31
14....	32	27	33	23	34	32	44	35	53	37	56	37	30	24	30	24	31	25	29	21	25	21	30	25	45	33	34	24
15....	29	26	31	21	34	31	36	33	39	36	46	36	29	24	34	22	30	24	29	21	21	17	29	26	40	32	30	24
16....	32	28	34	26	34	31	39	34	56	36	55	32	33	27	38	29	35	30	35	25	31	21	33	29	48	32	33	29
17....	33	18	33	29	36	31	38	33	58	35	61	43	36	30	34	28	35	30	36	31	34	31	36	33	55	35	40	31
18....	25	9	32	19	34	21	34	31	38	32	49	33	30	18	30	18	30	15	31	20	32	14	35	24	38	27	31	24
19....	20	− 1	20	11	23	17	31	23	34	25	35	25	20	9	20	9	19	11	20	10	16	4	24	10	32	21	25	10
20....	11	0	16	2	23	8	26	14	29	21	29	17	20	4	10	−17	19	6	20	8	15	− 5	22	9	38	12	21	4
21....	33	2	33	− 4	27	6	27	10	29	12	27	11	33	6	29	0	30	1	30	6	26	− 9	26	− 3	22	5	26	0
22....	33	12	28	19	34	20	33	22	33	22	35	20	28	15	22	10	29	21	29	21	27	14	31	18	33	18	27	20
23....	43	16	43	15	42	20	45	23	43	26	43	17	47	17	42	5	38	27	47	23	37	13	44	15	38	15	40	13
24....	43	23	45	24	44	29	47	32	49	32	47	29	45	25	48	18	45	29	52	28	35	13	39	24	41	28	37	23
25....	39	24	44	23	46	32	48	33	51	33	53	30	39	29	40	14	50	28	45	35	46	27	52	35	49	30	45	30
26....	35	5	38	20	39	21	39	28	41	33	49	39	36	18	46	14	39	14	40	14	39	15	41	23	42	34	40	26
27....	14	− 9	20	7	23	14	28	20	33	26	43	27	22	7	15	0	17	5	14	7	15	7	23	9	35	22	27	13
28....	28	− 7	25	− 4	27	6	25	14	28	20	32	23	29	0	26	−10	29	9	30	6	24	8	27	7	27	19	22	8
Mns..	25.5	7.6	28.6	11.0	31.2	18.0	34.2	23.2	38.3	26.5	41.1	24.7	29.0	14.5	28.0	7.5	28.6	15.8	29.2	16.6	25.0	9.2	30.8	17.5	34.4	21.1	29.5	16.5

Date.	Michigan—Lower Peninsula.						Ohio.								Erie, Pa.		New York.								Vermont.			
	Detroit.		Muskegon.		Saginaw, W. S.		Cleveland.		Lima.		Sandusky.		Toledo.				Buffalo.		Canton.		Rochester.		Syracuse.		Burlington.		Northfield.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	30	25	34	24	31	20	44	25	39	20	45	24	36	24	39	23	27	17	8	− 1	26	13	23	8	8	− 2	11	− 5
2....	41	18	32	22	32	17	55	22	54	29	54	22	45	23	49	17	43	15	10	− 3	42	14	41	8	23	2	15	2
3....	31	18	32	20	30	15	40	21	33	24	37	21	35	21	41	16	39	12	5	−23	32	11	31	5	22	− 8	17	−17
4....	35	20	30	18	32	18	40	24	36	21	37	24	39	25	36	22	34	23	34	3	34	27	39	28	38	20	39	17
5....	21	13	20	13	19	6	24	16	30	21	24	18	25	17	22	11	23	7	26	−21	27	10	32	3	32	− 7	30	− 7
6....	21	13	20	13	19	12	38	21	36	29	36	20	28	18	30	11	23	7	1	−24	21	6	11	1	0	−10	5	−18
7....	24	16	24	0	26	15	30	19	34	18	26	18	24	15	32	21	30	19	16	0	27	21	24	11	22	− 2	15	4
8....	32	22	32	18	34	17	31	23	33	25	32	22	38	23	33	25	32	20	30	14	31	24	33	24	28	20	24	15
9....	34	14	30	23	33	19	39	21	39	18	40	17	39	13	39	21	35	22	33	5	35	24	32	25	34	17	32	5
10....	27	15	24	20	27	18	25	20	38	15	24	17	26	17	27	23	31	23	28	4	31	24	30	24	26	12	28	6
11....	39	14	39	9	43	7	38	15	38	17	40	15	41	14	38	17	34	18	23	12	32	20	33	22	24	10	23	7
12....	37	32	40	35	39	34	37	32	41	16	37	32	37	30	36	31	33	29	20	11	35	30	36	28	15	9	24	8
13....	39	34	37	34	38	34	41	35	43	35	41	35	41	34	38	36	40	28	12	7	36	25	36	26	11	1	24	12
14....	36	30	35	34	38	32	56	31	57	40	44	33	48	35	41	30	28	23	11	− 3	26	23	28	20	7	− 6	21	5
15....	33	28	35	30	34	29	38	31	48	38	33	31	35	31	38	29	33	23	11	− 5	30	21	25	12	10	− 9	18	−15
16....	45	30	41	34	38	32	54	34	56	34	52	32	52	30	41	35	42	25	20	−14	38	21	37	6	24	−11	30	−18
17....	59	35	50	33	48	34	62	34	65	48	62	34	62	36	59	33	44	32	40	14	48	34	47	33	36	11	41	3
18....	37	29	33	28	36	29	34	31	49	35	35	30	37	29	34	30	36	29	34	21	37	30	34	29	34	21	34	22
19....	29	17	28	23	31	16	33	21	40	21	30	22	30	19	30	19	30	14	21	0	31	16	29	8	21	1	22	− 8
20....	26	16	24	11	28	15	24	21	23	17	24	20	26	16	22	16	21	13	14	− 1	22	13	18	8	13	− 2	13	− 8
21....	21	12	28	9	28	6	21	16	22	12	22	17	26	14	19	13	18	8	15	− 1	19	10	15	6	10	4	12	0
22....	33	21	28	22	32	22	30	20	32	16	32	22	35	25	30	18	30	16	24	11	29	18	29	15	26	9	27	5
23....	41	19	38	18	47	17	36	20	39	20	40	20	45	22	35	16	31	12	31	2	35	14	34	14	30	6	27	6
24....	42	31	38	32	44	28	39	31	43	28	42	30	47	33	36	29	34	27	30	17	35	27	33	23	27	14	27	6
25....	51	34	43	35	54	34	51	35	51	32	52	34	53	35	48	34	43	33	42	22	43	35	44	29	42	15	44	7
26....	45	35	46	35	45	37	51	36	50	43	50	38	48	39	47	36	45	35	49	35	46	38	50	36	45	31	50	12
27....	35	23	40	22	38	22	37	27	48	23	38	28	39	26	37	24	35	19	37	8	38	20	40	18	42	9	42	9
28....	28	21	34	17	30	15	27	21	51	20	30	23	32	23	25	18	24	17	19	0	24	16	21	12	11	1	13	0
Mns .	34.7	22.7	34.4	22.6	34.8	21.4	38.4	25.1	41.7	25.5	37.8	25.0	38.2	24.5	35.8	23.4	32.8	20.2	23.0	3.2	32.5	20.9	31.6	17.2	23.6	5.6	25.3	2.0

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 5, UPPER MISSISSIPPI VALLEY.

GEORGE M. CHAPPEL, District Editor.

GENERAL SUMMARY.

The month as a whole was remarkably pleasant; the most notable characteristics being the excess of temperature and precipitation, the heavy snowstorm on the 5th and 6th, the long period of excessive cloudiness between the 10th and 18th, the heavy rains over the central and southern portions of the district between the 13th and 18th, and the abnormally high stages of many of the smaller rivers and creeks in the southern section. The average temperature was decidedly above the normal, and the precipitation was above the average, except in the small portions of South Dakota and Indiana within this district. The month opened with a well-defined disturbance central over the middle Missouri Valley, which caused snow over the northern section on the 1st, and was followed on the night of the 1st by decidedly lower temperatures. At Moorhead, Minn., the temperature fell 50° during the 24 hours ended at 7 a. m. of the 2d, at which time the temperature was 26° below zero. The cold weather was of short duration, however, as another disturbance appeared over Kansas on the morning of the 3d that caused higher temperature in all parts of the district and light snow over central Illinois. Fair weather with somewhat lower temperature prevailed on the 4th, due to an area of comparatively high pressure over all the the Missouri Valley, but the rapid movement eastward of a storm from the Rocky Mountain regions resulted in heavy snow on the 5th and 6th over the larger part of the district. This was the heaviest snowstorm of the winter in the central and southern portions of the upper Mississippi Valley. The depth of damp snow that fell during the storm ranged from 2 to over 10 inches. Fair weather prevailed from the 7th to the 12th, inclusive, except light snow over the northern sections on the 7th. Rain was general in the southern and central, and snow in the northern sections, on the 13th and 14th and from the 16th to the 18th. More rain fell in Iowa during that period than is usual for the month of February. Another heavy snowstorm occurred in Missouri and southern Illinois on the 20th. Fair weather prevailed generally during the last week of the month except rain in Missouri, Iowa, Illinois, and southern Wisconsin on the night of the 25th and snow in Missouri and southern Illinois on the night of the 27th and the 28th. The high temperature after the 10th, together with the warm, heavy rains over the central section between the 13th and 18th, caused the snow that fell on the 5th to melt rapidly, and as the ground was frozen at that time, the water ran off quickly and caused an unprecedented high stage in many of the smaller rivers for so early in the season. The snow was practically gone, and there was very little or no frost in the ground at the close of the month south of southern Minnesota and southern Wisconsin.

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TEMPERATURE.

The temperature was above the normal in all parts of the district, the monthly means for the several States being as follows: North Dakota, 5.3°; Minnesota, 16.3°; South Dakota, 16.7°; Wisconsin, 22.8°; Iowa, 27.4°; Missouri, 35.4°; Indiana, 31.1°; and Illinois, 33.3°; and the average departure ranged from +0.5° in North Dakota to +8.3° in Iowa. The excess of temperature was not caused so much by unusually high maximum temperatures as by higher minimum temperatures than usual. In Missouri, Indiana, the southern half of Iowa, and Illinois, the temperature was above zero during the entire month. There were, however, some low temperatures recorded in the extreme northern sections, but even there the minimum temperatures were not as low as usual in February, nor were there as many days as usual with temperatures of zero or below. The only sections reporting exceptionally high temperatures were Missouri and southern Illinois, where the monthly maximum was 85° and 78°, respectively. The coldest periods were from the 2d to the 6th, the 10th, and 19th to the 22d, and the warmest days were from the 14th to the 17th and from the 23d to the 25th. Most of the cold weather occurred during the first and second decades, and the lowest temperature was recorded generally during the first decade.

The monthly mean temperature for the district, as shown by the records of 295 stations, is 23.4°, which is 7° above the normal. The highest monthly mean was 43.1°, at Cairo, Ill., and the lowest, −1.6°, at Willow City, N. Dak. The highest temperature recorded was 85°, at Warrenton, Mo., on the 1st, and the lowest was −40°, at Little Fork, Minn., on the 5th. The greatest daily range was 55°, at Detroit, Minn., and at Louisiana, Mo.

PRECIPITATION.

The precipitation was above the normal over all the upper Mississippi Valley, except in the small portion of South Dakota and Indiana within this district, the average amounts with the departure from the normal for the various States being as follows: North Dakota, 0.79 inch, +0.41 inch; Minnesota, 0.84, +0.03; South Dakota, 0.45, −0.34; Wisconsin, 1.67, +0.56; Iowa, 2.91, +1.87; Missouri, 3.07, +1.09; Indiana, 2.33, −0.10; and Illinois, 2.35 inches, +0.14 inch. Light snow flurries were general and frequent over the extreme northwestern part of the district between the 1st and 7th, but the first general storm of the month over the upper Mississippi Valley was on the 5th and 6th, when moderate to heavy snow fell over the central and northern and rain in the extreme southern parts of the district, the heaviest snowfall being over the central section. The depth of snowfall varied

from 2 to over 10 inches in Iowa, and from a trace in extreme southern to 16 inches in northern Illinois. From eastern Iowa eastward over northern Illinois to Indiana the storm was attended by high wind, which caused the snow to drift badly. The next series of general storms occurred between the 13th and 19th, when heavy and in many localities excessive rains fell over the central and southern and light to moderate snow over the northern sections between the 13th and 18th, and heavy snow fell over Missouri and central and southern Illinois on the 19th. The month was the wettest February on record in Iowa, and the total amount at stations in northwestern Illinois and southwestern Wisconsin was much above the normal. The ground was covered with snow during the entire month in the northern section, from the 5th to the 11th in the central, and from the 19th to about the 25th in Missouri.

The average precipitation for the district, as shown by the records of 308 stations, is 1.91 inches, which is 0.79 inch above the normal. The greatest amount, 5.46 inches, occurred at Lacona, Iowa, and the least, a trace, at Forman, N. Dak. The greatest amount in 24 hours, 2.5 inches, occurred at Ottumwa, Iowa, on the 16th. The average depth of unmelted snow was 7.6 inches. The greatest depth was 29 inches, at International Falls, Minn. Measurable precipitation occurred on an average of 6 days.

SUNSHINE AND CLOUDINESS.

The average number of clear days was 12; partly cloudy, 6; cloudy, 10. The duration of sunshine was about the normal, being slightly above in the northern and slightly below in the southern portions of the district.

WIND.

Northwest winds prevailed. The highest velocity reported was 44 miles per hour from the northwest, at St. Paul, Minn., on the 1st.

MISCELLANEOUS.

Referring to the warm spell during the middle of the month, Mr. William E. Barron, local forecaster, Cairo, Ill., reports:

During that period some kinds of vegetation became much advanced beyond the usual stage for the season. Plum trees were budding, and in some instances partly in blossom. The buds were killed entirely by the freezing temperatures from the 19th to the 24th. Some apple trees were partly in leaf, and other fruits were advanced toward budding, but may have escaped damage.

Owing to warm, wet weather, the country roads were in bad condition over the central and southern portions of the district, and in Missouri railway traffic was hindered somewhat on account of soft roadbeds.

The water trains that have been used on the eastern and Illinois divisions of the Iowa Central Railroad from Oskaloosa, Iowa, to Monmouth, Ill., since last fall, for hauling water to supply storage tanks from which locomotives are supplied, have been taken out of service. The rains during the middle of the month filled the rivers, creeks, reservoirs, and other sources from which the company secures water, and the amount of water now available will, it is thought, be sufficient to supply all demands until the spring rains come.

RIVERS.

The rivers and lakes remained frozen in the extreme northern part of the district, the ice in the Red River at Moorhead, Minn., being 35 inches in thickness at the close of the month.

On February 5 heavy snow fell over the central portion of the upper Mississippi Valley. This was followed on and after the 10th by very warm weather, with heavy and general rains between the 13th and 18th. The warm weather caused the snow to melt rapidly, and as the ground was frozen at that time the water drained into the rivers quickly. This, together with the heavy rains between the 13th and 18th, caused an unusually high stage in all creeks and the smaller rivers.

The Des Moines and Raccoon Rivers began rising rapidly at Des Moines on the afternoon of the 14th, at which time the ice moved out of the Raccoon, and below the Center Street Dam in the Des Moines River about two weeks earlier than the average date. The Des Moines rose 2 feet between 4 and 5 p. m. on the 14th, which was followed by a gradual rise until the 18th, when the maximum stage, 6.6 feet, was recorded. After the 18th it fell slowly to a stage of 2.8 feet on the 22d, and then remained nearly stationary during the remainder of the month. The ice was still intact above the Center Street Dam at the close of the month, although there had been a rise of 5 feet in the stage, with water running over the dam for the first time since last September. The maximum stage, 6.6 feet, is the highest on record for so early in the year, and the highest for any February except in 1906, when it was 7.8 feet on the 27th. There was no damage done by the ice or high water except to delay the work on the new Walnut Street Bridge.

Mr. J. H. Spencer, local forecaster at Dubuque, reports:

The Mississippi River rose from 2.2 feet at 7 a. m. of the 13th to 8.4 feet at 4 p. m. of the 16th, when it began to fall slowly. At no time did the Wisconsin River or the Mississippi River above Dubuque approach flood conditions, but the water was very high in most of the small streams north of Dubuque to Prairie du Chien, Wis., and in a few instances train service was interrupted by washouts. The ice in the Mississippi River below the drawbridge at Dubuque moved out during the afternoon of the 17th. No damage resulted. It moved out above the drawbridge during the 26th. This is the earliest opening of the river at Dubuque in 29 years. Prior to this year the earliest opening in 29 years was on March 3, 1892. At last reports the Mississippi was frozen at Prairie du Chien, Wis., and stations above, while the Wisconsin River was frozen at all stations.

Mr. J. M. Sherier, local forecaster at Davenport, Iowa, says:

At Galena, Ill., the Galena River was out of its banks on the 14th, and is said to have been higher than at any time since 1892. No great loss resulted at that place, however, the damage being limited to the flooding of cellars in the lowlands and to the washing away of a considerable amount of cordwood. The rise in the Maquoketa River at Maquoketa, Iowa, is reported to have been the most rapid ever known, and the maximum stage, reached shortly after midnight of the 13th–14th, exceeded by about 8 inches the previous high-water mark, established in June, 1892. Water poured over the doorsills of the engine room at the waterworks, putting out the fires and leaving the city from the evening of the 14th until nearly noon of the 15th dependent upon the supply of water in a standpipe that had been filled before the pumping machinery had been rendered useless. Some small bridges in the vicinity of Maquoketa were also taken away by the flood. It is probable that the most serious damage occurred in the bottom lands along the Wapsipinicon River, which stream was at a flood stage from February 14 to 18, inclusive. Seventy-three head of cattle belonging to George Comstock, a farmer in the river bottoms near Wheatland, Iowa, were carried downstream and lost. The flood is reported to have come up with such rapidity that it was impossible to reach the cattle in time to save them. Families in the lowlands near Wheatland were compelled to leave their homes in skiffs. The body of Oscar Bowker, an aged man, was found on February 24 within 2 feet of a bridge near Oxford Mills, Iowa, from which he is supposed to have been washed on the 16th instant. Numerous wagon bridges were carried away by the flood in the Wapsipinicon, and some of the railway bridges over that stream were temporarily rendered unsafe. The railway bridge at Buchanan, over the Cedar River, was also washed out. On February 20 the Rock River reached a stage of 10.4 feet at Milan, Ill., or 0.1 foot below the flood stage, and then began to recede. While the Mississippi rose rapidly after the 13th instant, the conditions in this district were at no time serious. At Clinton the stage on the 13th was 2.4 feet, and on the 18th, 9 feet. At Davenport

the stage on the evening of the 13th was 2.6 feet, and on the evening of the 18th, 9.6 feet. The range at Muscatine was from 3.3 feet on the 13th to 11.8 feet on the 19th. The ice on the reach of river between Dubuque and Muscatine moved out quietly between the 15th and the 18th.

Mr. Clarence J. Root, section director, Springfield, Ill., reports:

Serious floods occurred in the Pecatonica, Rock, and Des Plaines Rivers and their tributaries. At Freeport the Pecatonica reached the highest stage in 50 years. Power plants and railway service were put out of commission and damage resulted throughout the flooded districts. Cattle were lost, and a number of persons narrowly escaped drowning. The Illinois River was above flood stage from the 15th to the 25th, but no damage resulted. This river was open during most of the month, and the Mississippi at St. Louis during the entire month.

DRAINAGE AND ENGINEERING NOTES.

The office work in connection with the survey of the Des Moines River by the United States Army engineers, under the supervision of Mr. A. O. Rowse, assistant engineer, is nearing completion. During February about 27 per cent of the contours were drawn and inked, making this part of the work 72 per cent complete. About 25 per cent of the indexing of notebooks was done, completing this work. A general design was made for locks 60 feet in width, 350 feet between hollow quoins, with sills for 6 and 9 feet depth of waterway, respectively. The office force was transferred early in the month from Des Moines, Iowa, to Detroit, Mich.

One of the largest drainage propositions yet considered by the board of supervisors of Story County, Iowa, is that of a drain to be known as Milford Township drain No. 32, the estimated cost of which is $94,000. There are about 9,000 acres of land in the district, which makes the average cost of drainage $10.44 per acre. The open ditch will be 4 miles in length, and the tile, which vary in size from 30 to 8 inches, will extend 14 miles.

TABLE 1.—*Climatological data for February, 1911. District No. 5, upper Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Dakota.																			
Amenia	Cass	954	14	7.8	+ 0.6	40	24	− 21	5	49	0.85	+ 0.41	0.40	8.5	5	16	3	9	nw.	C. E. Wood.
Bottineau	Bottineau	1,638	16	2.0	+ 1.5	34	21	− 24	3	39	0.31	− 0.09	0.12	5.7	4	14	6	8	nw.	J. A. Kemp.
Cando	Towner	1,488	10	3.6[e]	+ 1.0	31	25	− 24	2	35[b]	0.15	+ 0.06	0.12	.....	2	....	....	....	w.	E. T. Judd.
Crosby	Divide	.....	5	5.1	.....	29	14	− 30	3	50[b]	0.55	.....	0.34	9.0	3	....	....	....	sw.	H. C. Kaschau.
Devils Lake	Ramsey	1,482	6	4.3	− 0.2	33	24	− 23	2	30	1.42	+ 0.89	0.62	15.3	5	14	9	5	w.	U. S. Weather Bureau.
Donnybrook	Ward	1,760	12	5.4	− 1.2	32	10	− 24	3	43[b]	0.85	+ 0.43	0.60	8.5	2	....	....	....	nw.	C. J. De Vore.
Dunseith	Rolette	.....	14	2.7	+ 0.1	33	14	− 24	27	43	0.40	− 0.09	0.30	4.0	2	0	2	26	w.	L. H. Trowbridge.
Edmore	Ramsey	1,524	6	1.8	.....	35	25	− 27	10	37	0.70	.....	0.40	7.0	2	16	12	0	w.	H. R. Aslakson.
Forman	Sargent	1,249	17	14.0	+ 5.2	42	12	− 17	19	42	T.	− 0.42	T.	T.	0	19	2	7	nw.	A. Maltby.
Grafton	Walsh	827	20	5.6	+ 0.2	32	25	− 30	5	37	0.71	+ 0.19	0.30	8.4	3	15	7	6	nw.	A. R. T. Wylie.
Granville	McHenry	1,504	5	3.5	.....	42	24	− 23	2	38	0.32	.....	0.30	14.0	2	11	11	6	nw.	W. A. Christiansen.
Hannah	Cavalier	1,568	6	1.2	.....	30	25	− 27	4	36	0.30	.....	0.20	3.0	2	21	2	5	nw.	J. Moffatt.
Hansboro	Towner	.....	3	5.2	.....	35	23	− 27	2	32	0.40	.....	0.22	3.5	4	24	2	2	nw.	Geo. Dale.
Hillsboro	Traill	901	6	8.2	.....	36	24	− 18	2†	40	1.40	.....	0.80	14.0	6	15	9	4	nw.	F. E. Mayall.
Lakota	Nelson	1,519	5	2.0	.....	32	25	− 26	27	42	0.43	.....	0.25	11.0	3	16	10	2	w.	C. R. Pettes.
Langdon	Cavalier	1,615	16	4.2	.....	31	25	− 26	5	39[a]	1.14	.....	0.40	.....	4	6	10	12	w.	J. Woolner.
Larimore	Grand Forks	1,134	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lisbon	Ransom	1,091	7	11.6	+ 3.0	40	24	− 15	10†	43	1.00	+ 0.42	0.20	10.0	6	13	9	6	nw.	Reuben Gray.
McKinney	Renville	1,640	17	3.8	− 0.1	34	25	− 30	3	41	0.80	+ 0.50	0.80	8.0	1	18	5	5	nw.	H. K. Adams.
Manfred	Wells	1,605	10	4.0	.....	30	24†	− 22	20	36	1.10	.....	0.50	11.0	3	14	10	4	sw.	N. P. Swenson.
Mayville	Traill	975	15	11.6	+ 4.2	36	24	− 14	2	36	0.45	+ 0.02	0.20	.....	3	....	....	....	nw.	P. B. Anderson.
Minot	Ward	1,557	13	8.2	+ 1.8	35	13†	− 22	2	38	1.14	+ 0.72	0.70	11.4	5	24	0	4	w.	W. C. Gould.
Minto	Walsh	820	18	7.2	+ 2.2	32	24†	− 30	4	45[c]	1.05	+ 0.56	0.58	.....	4	19	3	6	w.	J. J. Bates.
Oriska	Barnes	1,270	6	8.8	.....	35	24	− 19	5	36	0.41	.....	0.20	4.5	2	13	7	8	nw.	S. S. Marsh.
Park River	Walsh	998	8	6.4	.....	33	25	− 24	5	36	1.28	.....	0.80	.....	5	10	16	2	n.	W. E. Williams.
Pembina	Pembina	789	13	0.8	+ 1.7	24	26	− 29	6	51	2.85	+ 2.46	0.80	28.5	7	10	11	7	w.	A. Heyward.
Power	Richland	1,020	19	6.2	− 2.0	39	25	− 22	19	45	0.50	− 0.05	0.20	5.0	4	19	6	3	nw.	C. W. Shumaker.
Pratt	McHenry	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Power.
Towner	do	.....	3	3.2	.....	37	25	− 27	1	40	0.80	.....	0.60	8.0	2	21	4	3	nw.	C. H. Butts.
University	Grand Forks	830	19	5.3	− 1.8	34	24	− 27	5	41	1.27	+ 0.84	0.87	13.8	5	17	5	6	n.	B. Bagley.
Wahpeton	Richland	962	19	8.3	− 2.7	31	23	− 17	2†	34	0.40	− 0.12	0.30	3.0	2	14	6	8	nw.	H. E. Simpson.
Walhalla	Pembina	966	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. G. Burch.
Westhope	Bottineau	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Lee.
Willow City	do	1,471	18	−1.6	− 4.5	32	24	− 38	3	46	1.00	+ 0.60	1.00	10.0	1	14	9	5	w.	C. W. Clark.
Minnesota.																				M. A. Ostby.
Albert Lea	Freeborn	1,229	20	22.6	+ 7.5	49	24	− 7	9	30	1.25	+ 0.42	0.60	1.0	3	3	18	7	nw.	Edward Carey.
Alexandria	Douglas	1,391	17	.....	.....	43	24	.....	.....	22	0.36	− 0.23	0.20	3.5	3	12	3	13	nw.	P. O. Unumb.
Angus	Polk	870	9	4.2	.....	33	24	− 32	5†	43	0.95	.....	0.60	9.5	4	16	7	5	s.	John Nadvornik.
Bagley	Clearwater	.....	5	7.8	.....	37	14	− 34	5	52	0.81	.....	0.60	13.0	4	9	14	5	w.	Jens Nelson.
Beardsley	Bigstone	1,090	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Roy A. Smith.
Beaulieu [e]	Mahnomen	1,200	9	8.0	.....	37	15†	− 27	18	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. P. A. Slattery.
Bird Island	Renville	1,039	21	17.8	+ 5.2	44	24	− 13	21	37	0.16	− 0.43	0.07	1.6	4	13	4	11	nw.	D. F. L. Puffer.
Caledonia	Houston	1,179	18	24.2	+ 9.2	47	25	− 4	11	46	0.80	− 0.14	0.40	4.0	2	9	5	14	nw.	W. D. Belden.
Campbell	Wilkin	984	2	11.7	.....	45	12	− 16	3	43	0.32	.....	0.20	3.2	3	8	1	19	nw.	J. T. Neisess.
Cass Lake	Cass	1,300	4	.....	.....	.....	.....	.....	.....	.....	0.83	.....	0.35	13.0	5	.....	.....	.....	.....	C. W. Burns.
Collegeville	Stearns	1,282	18	21.2	+ 6.6	44	24	− 7	5	29	0.44	− 0.12	0.13	7.8	4	14	5	9	nw.	F. Tembreul.
Crookston	Polk	863	21	5.4	− 0.2	34	24	− 20	5	42	1.20	+ 0.45	0.40	12.0	5	19	2	7	nw.	A. G. Andersen.
Detroit	Becker	1,364	15	6.6	+ 2.2	40	11	− 26	5	55	0.46	− 0.19	.....	5.4	5	19	2	7	nw.	G. W. Peoples.
Fairmont (near)	Martin	1,240	24	22.7	+ 8.5	45	1	− 9	10	33	1.35	+ 0.33	0.80	8.0	4	14	8	6	nw.	W. F. Wherland.
Faribault	Rice	1,003	14	22.0	+ 6.8	52	24	− 10	10	33	1.13	+ 0.48	0.45	8.0	7	11	8	9	nw.	Dr. A. C. Tanner.
Farmington	Dakota	902	23	22.7	+ 9.3	46	24†	− 11	10	37	0.90	− 0.15	0.40	3.0	5	11	6	11	nw.	D. F. Akin.
Fergus Falls	Ottertail	1,210	19	13.4	+ 3.1	36	24†	− 14	2	33	0.41	− 0.18	0.30	4.1	7	14	7	7	nw.	C. E. Kissinger.
Fort Ripley	Crow Wing	1,136	4	16.4	.....	44	24	− 20	5†	44	0.12	− 0.64	0.05	2.0	3	19	0	9	nw.	J. J. Tucker.
Fosston	Polk	1,289	2	7.8	.....	38	14	− 26	5†	39	0.93	.....	0.65	9.3	4	18	3	7	sw.	O. N. Hem.
Fram	Marshall	.....	...	3.6	.....	33	21	− 35	5	45	0.65	.....	0.35	7.0	2	1	17	10	nw.	A. W. Clark.
Glencoe	McLeod	1,000	15	21.4	+ 6.3	51	1	− 9	10	39	.....	.....	.....	.....	.....	16	9	3	nw.	F. B. Reed.
Grand Meadow	Mower	1,338	23	22.9	+ 9.5	47	24	− 5	10	29	1.45	+ 0.40	0.68	4.0	5	15	6	7	nw.	C. F. Greening.
Gull Lake Dam [b]	Cass	1,215	....	17.1	.....	43	25	− 17	5†	43	0.21	.....	0.21	2.8	1	16	3	7	n.	G. A. Williams.
Hallock	Kittson	815	12	4.3	+ 2.3	33	24	− 36	5	50	1.40	+ 0.94	0.60	14.0	6	18	0	10	n.	D. A. Robertson.
Halstad	Norman	870	5	3.2	.....	38	24	− 22	5†	44	0.85	.....	.....	8.5	3	19	2	7	nw.	A. G. Holstrom.
Hinckley	Pine	1,050	6	18.6	.....	44	24	− 15	11	39	0.50	.....	0.20	5.0	3	3	14	11	n.	W. R. Newman.
International Falls	Koochiching	1,112	3	14.9	.....	40	24	− 24	4	36	2.90	.....	1.20	29.0	7	12	9	7	e.	Rees Roe.
Kelliher	Beltrami	.....	4	13.2	.....	40[b]	13	− 29[b]	5	50[b]	1.59	.....	1.02	15.5	3	10	11	7	nw.	A. Gilmour.
Lake Crystal	Blue Earth	.....	4	22.9	.....	46	24	− 11	10	38	0.66	.....	0.35	1.7	5	16	3	9	s.	W. P. Cobb.
Leech Lake Dam	Cass	1,301	23	11.2	+ 4.5	44	24	− 32	5	45	1.39	+ 0.71	0.76	15.7	5	8	13	7	w.	Hans Olson.
Litchfield	Meeker	1,134	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. Y. Taylor.
Little Fork	Koochiching	.....	...	9.4	.....	43	24	− 40	5	52	0.85	.....	0.85	11.0	1	14	6	8	.....	O. C. Olson.
Long Prairie	Todd	1,299	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. M. Sheets.
Lynd	Lyon	1,175	19	20.4	+ 5.3	44	24†	− 7	21	37	0.56	+ 0.10	0.41	8.0	2	20	3	5	nw.	J. W. Rouse.
Mankato	Blue Earth	758	12	.....	.....	.....	.....	.....	.....	.....	0.63	− 0.16	0.24	5.0	4	15	2	11	nw.	Sadie H. Blake.
Mapleplain	Hennepin	1,023	18	20.1	+ 8.3	42	24†	− 11	10	34	1.05	− 0.03	0.35	7.5	9	15	4	9	nw.	G. W. Richards.
Milaca	Millelacs	1,072	13	17.6[e]	+ 6.9	42	24	− 15	10	47[e]	0.70	− 0.25	0.48	2.7	3	10[e]	6[e]	7[e]	nw.[e]	C. H. Foss.
Milan	Chippewa	955	17	16.6	+ 4.7	44	24†	− 12	10†	41	0.60	− 0.32	0.20	6.0	4	2	21	5	nw.	O. K. Opjorden.
Minneapolis	Hennepin	918	20	22.0	+ 6.7	45	25	− 3	10	28	0.89	+ 0.16	0.38	5.9	9	15	3	10	nw.	U. S. Weather Bureau.
Montevideo	Chippewa	900	21	18.2	+ 5.4	43	25	− 9	21	37	0.55	− 0.17	0.30	5.2	2	12	7	9	nw.	L. G. Moyer.
Moorhead	Clay	935	30	9.2	+ 2.2	39	24	− 18	5	38	0.63	− 0.10	0.32	6.3	6	15	6	7	nw.	U. S. Weather Bureau.
Mora	Kanabec	.....	6	18.4	.....	43	24	− 15	10	40	0.86	.....	0.27	6.2	7	17	4	7	nw.	Hans Peterson.
Morris	Stevens	1,170	26	14.4	+ 4.1	43	24	− 11	21	32	0.31	− 0.23	0.20	3.1	3	18	2	8	nw.	D. T. Wheaton.
New London	Kandiyohi	1,215	17	12.6	+ 1.6	36	11†	− 10	2†	28	0.27	− 0.23	0.27	3.0	1	12	8	8	sw.	Harold Swensen.
New Richland	Waseca	1,180	17	23.8	+ 8.1	49	24	− 6	10	30	0.81	.....	0.37	3.5	3	13	7	8	nw.	N. O. Tryholm.
New Ulm	Brown	791	31	20.8	+ 5.3	47	24†	− 7	10	37	0.60	− 0.33	0.30	3.6	3	5	2	21	s.	A. J. Eckstein.
Osakis	Douglas	1,343	4	16.6	.....	42	24	− 14	10	35	0.43	.....	0.22	3.8	3	14	2	12	nw.	J. B. Johnson.
Park Rapids	Hubbard	1,426	21	12.2	+ 6.6	46	24	− 28	5	46	0.59	− 0.05	0.30	5.8	5	11	5	12	nw.	Dr. P. A. Walling.
Pine River Dam	Crow Wing	1,251	24	14.0	+ 7.1	41	24	− 25	5†	49	0.53	− 0.16	0.30	10.0	3	18	5	5	w.	Neil McKay.
Pokegama Falls	Itasca	1,280	24	12.5	+ 6.9	44	24	− 34	5	48	1.00	+ 0.27	0.63	10.0	4	13	9	6	w.	A. L. Mampel.
Red Lake	Beltrami	1,152	3	9.3	.....	36	24	− 34	5	45	1.08	.....	0.57	11.2	3	12	11	5	w.	A. C. Goddard.
Red Wing	Goodhue	680	15	.....	.....	.....	.....	.....	.....	.....	1.16	+ 0.01	0.54	6.2	5	13	2	13	nw.	Louis Bach.
Redwood Falls	Redwood	1,050	4	21.2	.....	45	25	− 8	21	35	1.10	+ 0.21	0.60	11.0	3	19	1	8	nw.	N. B. Andersen.
Reeds Landing	Wabasha	681	16	.....	.....	.....	.....	.....	.....	.....	0.45	− 0.17	0.22	5.0	4	11	1	16	nw.	John Deschneau.
Rochester	Olmsted	991	6	.....	.....	50	24	.....	.....	40	1.65	.....	0.80	4.0	3	12	3	13	nw.	S. R. Case.
Roseau	Roseau	1,040	3	6.8	.....	39	25	− 38	5	53	0.67	.....	0.40	6.7	4	16	7	5	se.	A. Waag.
St. Charles	Winona	850	20	24.5	+ 9.6	48	24	− 9	10	48	0.74	− 0.28	0.34	4.0	3	12	8	8	se.	S. W. Gleason.
St. Cloud	Sherburne	1,020	33	20.2	+ 7.7	47	24	− 10	10	36	0.37	− 0.25	0.15	2.5	5	14	5	9	nw.	J. H. Capser.
St. Paul	Ramsey	837	40	22.2	+ 7.2	44	25	− 5	10	29	0.87	+ 0.03	0.40	5.7	6	16	4	8	nw.	U. S. Weather Bureau.
St. Peter	Nicollet	825	17	.....	.....	49	24	.....	.....	24	0.70	+ 0.15	0.60	7.0	3	12	2	14	nw.	F. W. Kruger.
Sandy Lake Dam	Aitkin	1,234	18	14.6	+ 6.3	44	24	− 26	5	52	0.71	− 0.01	0.56	7.5	2	10	9	9	w.	A. Newstrom.
State Sanatorium	Cass	.....	3	14.8	.....	42	23†	− 21	5	37	0.85	.....	0.69	10.0	2	20	2	6	s.	Dr. W. J. Marcley.

TABLE 1.—*Climatological data for February, 1911. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Minnesota—Con.																			
Stillwater	Washington	694	6	.....	.....	.....	.....	.....	.....	.....	1.32	.....	0.46	5.4	5	16	2	10	nw.	Oscar Ostrom.
Taylors Falls	Chisago	759	4	21.2	.....	45	24	− 18	10	39	0.53	.....	0.28	7.5	2	16	4	8	n.	Mpls. Gen. Elec. Co.
Warroad	Roseau	1,069	2	10.4	.....	37	26	− 29	19	46	0.94	.....	0.50	17.0	3	14	4	10	w.	J. H. Sawyer.
West Concord	Dodge	1,232	2	23.6	.....	47	24	− 8	10	34	1.35	.....	0.75	6.0	2	18	4	6	nw.	H. H. Orcutt.
Windom	Cottonwood	1,336	4	21.7	.....	45	24	− 13	10	39	0.88	.....	0.40	6.0	4	8	14	6	nw.	T. C. Richmond.
Winnebago	Faribault	1,100	12	22.4	+ 7.9	47	25	− 9	10	45	1.20	+ 0.36	0.52	7.0	4	15	6	7	nw.	H. H. Haight.
Winnibigoshish	Itasca	1,300	23	12.8	+ 5.7	42	24	− 28	5	44	1.44	+ 0.79	0.67	16.5	7	14	9	5	se.	John Duncan.
Winona	Winona	700	15	25.0	+ 9.2	51	25	− 5	10	29	0.95	+ 0.08	0.32	5.2	6	13	5	10	e.	P. C. Myers.
Worthington	Nobles	1,593	16	20.2	+ 5.3	44	24	− 6	10	41	0.78	+ 0.11	0.75	6.5	2	13	6	9	nw.	M. P. Mann.
Zumbrota	Goodhue	917	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. C. Rowell.
South Dakota.																			
Milbank	Grant	1,148	20	16.7	+ 4.1	45	24	− 8	7	41	0.45	− 0.34	0.38	3.5	2	14	1	13	nw.	I. T. Patridge.
Wisconsin.																			
Antigo	Langlade	1,489	17	21.3	+ 7.5	45	25†	− 9	5	32	0.64	.....	0.30	5.2	5	16	2	10	w.	Elton C. Larzelere.
Barron	Barron	1,115	20	19.8	+ 7.4	41	25	− 13	10	31	0.75	− 0.33	0.46	5.5	3	12	9	7	nw.	Wm. A. Kent.
Beloit	Rock	750	45	27.7	+ 7.8	48	25	0	10	34	1.98	+ 0.27	0.70	7.3	6	13	0	15	w.	Smith Observatory.
Big St. Germain Dam §	Vilas	1,590	1	19.5	.....	46	24	− 12	5	43	0.89	.....	0.55	9.5	7	13	6	9	nw.	Oscar Brehner.
Brodhead	Green	812	13	26.8	+ 8.1	50	24	− 7	10†	37	3.15	+ 1.57	0.63	10.0	8	10	8	10	nw.	Hector D. Kirkpatrick.
Burnett	Dodge	880	7	25.6	.....	47	25†	− 3	10	33	2.63	.....	0.92	6.2	5	6	9	13	nw.	Geo. W. Smith.
Cottage Grove	Dane	888	.....	.....	.....	.....	.....	.....	.....	.....	2.58	.....	0.86	6.8	6	8	10	10	sw.	John E. Mellish.
Darlington	Lafayette	867	5	26.2	.....	48	25	− 7	10†	37	4.95	.....	2.00	8.0	5	13	0	15	nw.	S. P. Nelson.
Deerskin Dam §	Forest	1,625	1	.....	.....	.....	.....	.....	.....	.....	0.63	.....	0.25	4.5	4	9	6	13	sw.	Wm. E. O'Neal.
Delavan	Walworth	920	20	27.0	+ 6.7	49	24†	− 4	10	35	2.12	+ 0.77	0.80	6.0	5	10	3	15	nw.	Elwood S. Austin.
Dodgeville	Iowa	1,116	11	24.1	+ 6.2	41	25	− 5	10	42	2.55	+ 1.43	0.84	10.8	6	9	0	19	w.	Geo. H. Butler.
Downing	Dunn	983	9	21.5	.....	44	25	− 10	7	35	.....	.....	.....	.....	.....	4	2	22	w.	Eugene F. Stoddard.
Eau Claire	Eau Claire	800	20	24.2	+ 9.9	49	25	− 8	10	36	1.41	+ 0.13	0.65	6.4	5	11	8	9	nw.	Robert D. Whitford.
Grand Rapids	Wood	1,021	12	23.2	+ 8.7	46	25	− 9	10	31	0.93	+ 0.34	0.53	5.0	4	10	5	13	e.	Willis B. Raymond.
Grantsburg	Burnett	1,095	20	19.8	+ 8.0	46	24	− 20	10	40	0.90	− 0.21	0.40	9.0	4	9	6	12	nw.	Theodore Olsen.
Hancock	Waushara	1,091	19	24.7	+ 8.7	48	25	− 5	10	34	2.25	+ 1.11	1.30	6.0	5	9	9	10	w.	Frederick B. Hamilton.
Hatfield	Jackson	973	17	22.6	+ 8.3	50	25	− 10	7	33	1.50	+ 0.79	0.50	.....	4	7	6	15	s.	Walter S. Woods.
Hayward	Sawyer	1,197	20	17.6	+ 6.9	43	25	− 21	5	50	1.10	+ 0.03	0.30	11.0	5	12	5	11	nw.	William E. Swain.
Hillsboro	Vernon	1,000	20	22.9	+ 7.4	48	24	− 16	10	39	1.45	+ 0.12	0.60	8.0	6	11	8	9	w.	Emil V. Wernick.
Koepenick	Langlade	1,683	20	19.1	+ 5.2	45	25†	− 14	5	40	1.90	+ 0.62	1.00	9.0	6	0	18	10	nw.	Edward S. Koepenick.
Lac du Flambeau §	Vilas	.....	1	19.4	.....	47	25	− 12	5	39	1.50	.....	0.90	15.4	4	16	1	11	n.	W. J. Lovett.
La Crosse	La Crosse	714	39	25.8	+ 7.4	51	24	− 2	10	30	1.69	+ 0.63	0.86	6.2	5	4	7	17	nw.	U. S. Weather Bureau.
Lake Mills	Jefferson	897	20	26.4	+ 7.6	48	25†	− 4	10	38	1.99	+ 0.74	0.52	6.8	9	8	9	11	nw.	S. Newton Dexter Smith.
Lancaster	Grant	1,070	20	26.1	+ 8.9	49	24	− 7	10	30	2.86	+ 1.73	1.00	11.0	4	10	6	12	nw.	Edward Pollock.
Long Lake	Oneida	1,592	3	17.2	.....	45	25†	− 22	5	50	1.31	.....	0.49	8.2	9	10	8	10	nw.	Louie Frank.
Madison	Dane	974	42	25.6	+ 5.9	50	24	0	10	30	3.40	+ 1.93	1.29	9.2	8	7	7	14	nw.	U. S. Weather Bureau.
Mather	Juneau	962	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Frank Evans.
Mauston	do	882	15	26.0	+10.8	48	24	− 6	7	34	2.42	+ 1.35	1.30	5.0	5	10	8	10	nw.	Eugene L. Hitchcock.
Meadow Valley	do	974	20	23.6	+ 9.4	48	25	− 11	7	35	0.35	− 0.42	0.41	3.0	3	3	17	8	nw.	Charles H. Johnson.
Medford	Taylor	1,420	22	20.8	+ 7.2	43	25†	− 10	5	36	1.10	+ 0.01	0.50	6.0	3	8	13	7	w.	William Zeit.
Merrill	Lincoln	1,267	5	21.4	.....	45	25†	− 14	5	40	1.16	.....	0.40	7.6	4	15	2	11	s.	Wm. T. Hunter.
Minocqua	Oneida	1,604	7	16.0	.....	48	25	− 22	5	45	1.05	.....	0.50	9.0	7	7	12	9	w.	Benjamin W. Applebee.
Mondovi	Buffalo	738	3	24.1	.....	48	25	− 10	10	34	1.43	.....	0.60	8.0	5	16	1	11	nw.	Dr. Charles Hebard.
Mount Horeb	Dane	1,226	7	25.9	.....	48	24	− 5	10	33	3.39	.....	1.05	7.0	7	8	7	13	nw	W. M. Lewis.
Muscoda	Grant	666	2	26.2	.....	50	24	− 6	10†	47	2.32	.....	0.72	10.0	6	9	6	13	nw.	Henry Eckstein.
Neillsville	Clark	996	21	23.0	+ 9.2	48	25	− 6	10†	32	1.52	+ 0.10	0.70	6.0	3	9	3	16	nw.	Wm. Heaslett.
New Richmond	St. Croix	990	6	22.0	.....	47	25	− 14	6	37	0.90	.....	0.40	5.0	3	8	9	11	nw.	Franc A. R. Van Meter.
Osceola	Polk	806	20	21.0	+ 9.4	44	24	− 15	10	50	0.80	− 0.12	0.40	8.0	3	15	4	9	n.	Charles W. Staples.
Park Falls	Price	1,492	20	17.3	.....	45	24	− 15	21	47	1.17	.....	0.55	7.0	4	21	0	7	n.	Flambeau Paper Co.
Portage	Columbia	809	22	26.4	+ 9.0	49	25†	− 1	10	36	2.40	+ 1.38	1.00	7.0	4	11	5	12	nw.	Jeremyah Hanifan.
Port Edwards	Wood	969	1	22.6	.....	50	24	− 10	7	39	0.90	.....	0.34	4.5	6	8	5	15	nw.	Nekoosa-Edwards Paper Co.
Prairie du Chien	Crawford	690	20	26.5	+ 6.8	54	24	− 8	10	52	2.27	+ 1.20	0.90	10.0	6	6	10	12	nw.	James A. Gillis.
Prentice	Price	1,551	13	18.7	+ 7.2	38	25†	− 20	5	37	0.75	− 0.17	0.37	7.0	5	5	6	17	sw.	Joseph G. Lash.
Rhinelander	Oneida	1,550	5	20.4	.....	46	25	− 15	5	35	1.17	.....	0.43	9.3	6	12	4	12	sw.	John Lind.
Sauk City	Sauk	758	3	25.0	.....	51	25	− 10	7	40	.....	.....	.....	.....	.....	9d	8d	7d	.....	Kilien Derleth.
Shullsburg	Lafayette	1,019	5	25.8	.....	47	25†	− 7	10	33	4.17	.....	1.06	9.5	6	10	5	13	w.	Harrison B. Chamberlin.
Solon Springs	Douglas	1,083	5	17.7	.....	46	24†	− 22	5	46	1.30	.....	0.50	17.0	3	20	3	5	nw.	John M. Sayles.
Spooner	Washburn	1,104	17	17.8	+ 6.3	42	24	− 14	10	33	0.55	− 0.43	0.19	6.0	3	12	3	13	w.	Horace A. Bresee.
Stanley	Chippewa	1,082	7	22.0	.....	44	25	− 11	10	32	0.94	.....	0.47	4.7	4	14	3	11	se.	W. Humphrey Scott.
Stevens Point	Portage	1,113	18	22.2	+ 8.3	47	25	− 7	5	35	0.65	− 0.10	0.40	2.5	3	11	6	11	nw.	Garry E. Culver.
Sugar Camp Dam §	Oneida	1,582	1	.....	.....	.....	.....	.....	.....	.....	0.88	.....	0.48	12.5	4	.....	.....	.....	nw.	Robert Hayes
Twin Lakes Dam §	Vilas	1,625	1	.....	.....	.....	.....	.....	.....	.....	0.98	.....	0.40	7.8	5	5	15	8	n.	Albert D. Hansen.
Valley Junction	Monroe	930	19	24.2	+ 9.1	48	25	− 6	10	36	1.34	+ 0.32	0.45	4.4	7	6	7	15	nw.	Frederick Muermann.
Viroqua	Vernon	1,412	21	25.2	+ 8.4	47	24	− 5	10	28	1.61	+ 0.31	0.74	7.5	8	5	10	13	nw.	Henry E. Rogers.
Vudesare	Vilas	1,600	3	16.4	.....	46	25	− 21	5	42	1.83	.....	0.80	10.5	10	14	7	7	w.	Louis L. Thomas.
Watertown	Jefferson	824	20	26.8	+ 9.0	49	25	0	10	26	3.29	+ 1.80	0.75	10.3	7	7	9	12	w.	Charles J. Salick.
Waukesha	Waukesha	864	20	27.4	+ 8.9	49	25	1	10	32	2.50	+ 1.45	1.10	11.5	6	7	12	9	sw.	Carroll College.
Wausau	Marathon	1,212	16	23.1	+ 8.2	45	25	− 5	5	35	0.87	− 0.24	0.39	4.0	5	14	7	7	w.	George H. Halder.
Weyerhauser	Rusk	1,297	9	20.0	.....	42	25	− 16	5	37	0.81	.....	0.30	5.5	7	14	4	10	nw.	Miss Etta Stiles.
Whitehall	Trempealeau	675	20	25.0	+10.8	49	25	− 11	10	36	1.30	+ 0.34	0.60	3.0	3	15	0	13	nw.	Hans J. Haugh.
Iowa.																			
Albia §	Monroe	959	13	29.2	+ 8.9	64	1	5	10	38	5.30	+ 3.98	2.20	8.0	7	11	6	11	sw.	J. I. Chenoweth.
Algona §	Kossuth	1,213	37	24.0	+ 7.0	51	24	− 9	10	33	1.20	− 0.07	0.50	6.0	4	.....	.....	.....	.....	Dr. F. T. Seeley.
Alta	Buena Vista	1,513	20	23.0	+ 5.4	49	24	− 3	10	41	1.39	+ 0.54	0.70	7.0	4	12	8	8	nw.	David E. Hadden.
Amana	Iowa	721	35	28.4	+ 7.3	53	1	− 3	10	35	4.34	+ 3.08	1.50	9.5	8	11	7	10	nw.	C. Schadt.
Ames	Story	926	35	28.0	+ 6.8	53	24	− 8	10	42	1.68	+ 0.88	0.70	1.5	6	13	6	9	nw.	Iowa State College.
Baxter §	Jasper	998	11	27.8	+ 9.7	63	1†	− 5	10	40	2.42	+ 1.61	0.80	6.0	7	13	4	11	nw.	W. R. Vandike.
Belle Plaine	Benton	828	21	28.0	+ 8.1	56	1	− 5	10	40	4.20	+ 2.74	1.27	9.5	6	12	6	10	nw.	S. P. Van Dike.
Belmond	Wright	.....	1	24.0	.....	51	24	− 10	10	33	1.40	.....	0.84	5.5	5	7	13	8	nw.	Geo. P. Hardwick.
Bloomfield §	Davis	.....	4	31.8	.....	65	1	4	10	41	1.17	.....	0.52	8.2	3	4	10	14	n.	C. R. Davis.
Bonaparte §	Van Buren	.....	20	31.7	+ 8.9	68	1	2	10	35	3.34	+ 2.11	1.20	7.5	8	.....	.....	.....	.....	Hon. B. R. Vale.
Boone	Boone	1,134	6	25.8	.....	52	24	0	10	37	2.66	.....	1.40	8.0	5	.....	.....	.....	.....	Carl Fritz Henning.
Britt §	Hancock	1,236	14	23.4	+ 6.9	52	24	− 10	10	44	1.10	+ 0.07	0.46	4.0	5	16	6	6	nw.	L. M. Goodman.
Buckingham	Tama	.....	11	.....	.....	.....	.....	.....	.....	.....	2.55	+ 1.55	1.15	.....	5	.....	.....	.....	.....	J. S. Guynn.
Burlington	Des Moines	544	15	29.7	+ 6.0	61	1	3	10	41	3.09	+ 1.31	1.20	8.8	6	12	5	11	n.	Max E. Poppe, jr.
Carroll	Carroll	1,265	21	24.6	+ 5.7	42	12	− 2	9	39	1.23	+ 0.08	0.52	6.0	4	14	1	13	nw.	Mrs. Jos. J. Wolfe.
Cedar Rapids	Linn	733	29	27.4	+ 7.3	54	1	− 3	11	47	3.57	+ 2.19	1.36	6.0	6	12	1	15	w.	R. S. Toogood.
Charles City	Floyd	1,015	20	23.6	+ 8.5	52	24	− 10	10	43	2.06	+ 1.09	1.08	11.0	6	7	7	14	nw.	U. S. Weather Bureau.
Clear Lake §	Cerro Gordo	1,241	13	25.1	+10.5	46	24	2	2†	41	0.53	− 0.32	0.30	4.5	3	15	0	13	n.	Oscar Stevens.
Clinton	Clinton	593	44	29.8	+ 8.0	56	17	− 4	10	37	4.08	+ 1.99	1.43	13.0	6	10	8	10	.....	Luke Roberts.
Columbus Junction §	Louisa	595	10	30.6	+ 9.2	59	1	2	10	32	4.48	+ 3.30	1.10	8.3	8	13	5	10	w.	J. B. Johnston.
Davenport	Scott	580	40	31.0	+ 7.2	58	16	3	10	29	4.10	+ 2.54	1.34	8.7	9	12	3	13	w.	U. S. Weather Bureau.
Decorah	Winnishiek	875	18	24.8e	+ 9.5	50	24	− 11	10	35e	1.40	+ 0.49	0.75	8.0	5	.....	.....	.....	.....	F. H. Baker.
Delaware	Delaware	1,083	20	25.7	+ 9.4	48	24	− 7	10	30	2.90	+ 2.09	0.98	4.2	6	9	9	10	nw.	William Ball.

TABLE 1.—*Climatological data for February, 1911. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, (unmelted.)	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
Iowa—Continued.																			
Des Moines	Polk	861	33	29.1	+ 5.0	55	1	4	10	36	2.91	+ 1.83	0.94	7.6	6	9	4	15	n.	U. S. Weather Bureau.
Dubuque	Dubuque	639	38	28.0	+ 6.4	50	24	0	10	34	4.09	+ 2.71	1.34	7.7	8	7	7	14	nw.	Do.
Earlham	Madison	.....	9	30.0	.....	59	1	− 5	10	42	3.06	.....	1.09	6.5	6	15	3	10	nw.	George Phillips.
Elkader	Clayton	727	32	29.0	+11.0	55	24	− 11	10	49	2.34	+ 1.25	0.96	8.0	5	10	9	9	.....	Chas. Reinecke.
Elma	Howard	.....	2	23.4	.....	50	24	− 10	10	34	1.17	.....	0.85	4.0	4	10	8	10	nw.	H. A. Moore.
Estherville	Emmet	1,298	16	20.8	+ 5.7	50	24	− 10	10	42	1.00	+ 0.32	0.55	4.0	2	22	0	6	s.	A. O. Peterson.
Fairfield	Jefferson	.....	27	30.4	+ 8.7	57	17	3	10	33	4.90	+ 3.31	1.22	9.9	9	.....	.....	.....	.....	R. Monroe McKenzie.
Fayette §	Fayette	1,003	21	25.2	+ 8.3	52	24	− 13	10	36	3.11	+ 1.97	1.28	10.8	9	9	7	12	nw.	R. Z. Latimer.
Forest City §	Winnebago	1,226	17	22.2	+ 7.6	50	24	− 5	10	40	0.88	− 0.05	0.40	4.0	3	14	6	8	nw.	J. A. Peters.
Fort Dodge	Webster	1,126	11	24.9	+ 9.6	51	24	− 7	10	46	1.13	+ 0.42	0.60	6.0	4	15	3	10	n.	J. F. Monk.
Fort Madison	Lee	516	62	.....	.....	.....	.....	.....	.....	.....	2.61	+ 0.72	0.89	3.0	5	12	1	15	n.	Miss L. A. McCready.
Gilman	Marshall	1,052	12	.....	.....	.....	.....	.....	.....	.....	4.77	+ 3.77	1.65	10.0	5	.....	.....	.....	.....	J. L. Wylie.
Grand Meadow	Clayton	1,180	20	25.0	+ 8.3	51	24	− 9	10	31	2.40	+ 1.30	1.15	9.5	7	9	8	11	nw.	F. L. Williams.
Greene	Butler	.....	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. L. Cole.
Grinnell	Poweshiek	1,023	19	28.8	+ 7.5	56	1	− 1	10	42	4.29	+ 3.37	1.50	9.5	6	12	4	12	w.	D. W. Brainard.
Grundy Center §	Grundy	976	20	26.3	+ 8.6	44	24†	0	7	24	2.10	+ 1.25	0.65	10.5	5	13	0	15	nw.	J. B. Calderwood.
Guthrie Center §	Guthrie	1,077	16	28.4	+ 8.2	50	1†	− 5	10	40	2.72	+ 1.92	0.86	8.5	6	14	6	8	nw.	D. G. Beardsley.
Hampton	Franklin	1,155	21	25.6	+ 8.7	52	24	− 7	10	32	2.54	+ 1.37	1.30	8.5	5	9	11	8	nw.	E. C. Grenelle.
Humboldt	Humboldt	1,095	23	26.2	+ 8.5	53	24	− 11	10	38	1.59	+ 0.93	0.65	8.3	4	14	3	11	nw.	Henry S. Wells.
Independence §	Buchanan	921	47	27.2	+ 7.6	56	24	− 8	8	40	2.36	+ 1.35	1.25	4.0	5	11	6	11	nw.	R. E. Dudley.
Indianola	Warren	969	20	29.8	+ 7.5	57	1	6	10	29	4.61	+ 3.67	1.89	9.4	10	13	5	10	nw.	Prof. J. L. Tilton.
Iowa City	Johnson	683	51	27.4	+ 4.9	57	1	− 3	11	49	4.82	+ 3.35	1.92	6.0	6	14	1	13	nw.	Prof. A. G. Smith.
Iowa Falls	Hardin	1,170	18	23.9	+ 8.4	49	24	−11	10†	51	1.58	+ 0.54	0.60	8.0	5	13	4	11	nw.	J. B. Parmelee.
Jefferson §	Greene	.....	12	28.0	.....	54	25	−10	10	44	1.82	+ 0.97	0.61	6.0	5	10	7	11	nw.	M. E. Hall.
Keokuk	Lee	547	40	34.6	+ 8.0	71	1	11	10	35	2.35	+ 0.73	0.92	4.5	8	12	4	12	nw.	Weather Bureau.
Keosauqua	Van Buren	644	19	29.9	+ 6.8	66	1	1	8†	48	3.78	+ 2.33	1.35	9.0	7	6	11	11	.....	J. H. Landes.
Knoxville §	Marion	920	16	30.4	+ 8.5	59	1	3	10	31	4.04	+ 3.16	1.20	10.5	8	11	6	11	nw.	Casey & Bellville.
Lacona	Warren	.....	12	.....	.....	.....	.....	.....	.....	.....	5.46	+ 3.98	2.00	4.0	9	6	14	8	.....	J. B. Alter.
Le Claire	Scott	576	11	.....	.....	.....	.....	.....	.....	.....	3.82	+ 2.57	1.90	4.8	7	.....	.....	.....	.....	Miss M. T. Disney.
Marshalltown	Marshall	947	19	26.2	+ 6.8	55	1†	− 4	10†	46	3.22	+ 2.41	0.93	10.0	7	9	4	15	nw.	Ralph B. Reasoner.
Mason City §	Cerro Gordo	1,132	14	24.3	+ 8.1	49	24	− 9	10	30	1.37	+ 0.53	0.80	4.0	3	12	8	8	nw.	J. S. Mills.
Mount Pleasant §	Henry	729	30	31.2	+ 8.0	59	1	5	10	32	4.49	+ 3.43	1.31	10.8	9	13	2	13	nw.	J. W. Edwards.
Muscatine	Muscatine	.....	51	.....	.....	.....	.....	.....	.....	.....	3.91	+ 1.78	1.26	5.5	7	.....	.....	.....	.....	William Molis.
New Hampton §	Chickasaw	1,169	14	24.0	+ 9.4	54	24	− 9	10	33	2.29	+ 1.39	1.21	8.0	4	16	3	9	w.	A. F. Kemman.
Newton §	Jasper	944	23	29.0	+ 9.2	52	1†	− 1	10	38	3.57	+ 2.48	1.16	10.0	4	12	4	12	nw.	Hon. J. P. Beatty.
Northwood §	Worth	1,222	15	24.6[b]	+ 9.1	48	24	− 8	10	29[i]	2.53	+ 1.44	1.00	11.0	7	.....	.....	.....	nw.	Chas. H. Dwelle.
Olin §	Jones	760	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. H. Crissman.
Osage	Mitchell	1,184	24	25.0	+10.1	52	24	4	21	30	2.20	+ 1.06	1.00	6.0	3	13	6	9	nw.	Dr. A. D. Bundy.
Oskaloosa	Mahaska	843	35	29.8	+ 8.6	61	1	1	10	36	5.25	+ 4.24	1.28	5.3	7	12	1	15	nw.	Joseph Boyd.
Ottumwa	Wapello	649	16	30.3	+ 7.3	52	1†	2	10	43	4.92	+ 3.56	2.50	8.0	5	11	6	11	nw.	Chester Potter.
Pella	Marion	877	9	29.4	+ 9.1	58	1	− 2	10	40	4.86	+ 4.10	1.24	8.3	9	18	1	9	nw.	J. H. Ver Steeg.
Perry §	Dallas	975	10	27.8	+ 9.2	54	24	− 4	8	42	2.60	+ 1.62	1.10	6.0	6	10	6	12	nw.	Ed. S. Gray.
Plover	Pocahontas	1,426	15	24.0	+ 7.7	50	24	−12	10	38	1.40	+ 0.74	0.60	6.0	3	19	2	7	nw.	J. S. Smith.
Pocahontas §	do.	1,248	7	23.8	.....	52	24	− 8	10	40	1.72	.....	0.60	7.4	6	18	1	9	nw.	F. E. Hronek.
Ridgeway §	Winneshiek	1,215	13	26.6	+ 9.1	56	24	− 5	10	32	2.49	+ 0.32	1.23	4.7	8	10	10	8	s.	Arthur Betts.
Rockwell City §	Calhoun	.....	15	27.3	+ 9.7	52	1	− 3	10	41	3.40	+ 2.55	1.20	.....	6	16	2	10	.....	C. M. Randall.
Sac City	Sac	1,278	35	25.8	+ 8.0	50	24	1	21	31	1.45	+ 0.43	0.60	10.0	3	16	4	8	nw.	E. N. Baily.
St. Charles §	Madison	1,070	10	30.6	+ 9.7	60	1	5	10	39	4.23	+ 3.23	1.00	6.5	9	11	5	12	nw.	R. D. Minard.
Sigourney §	Keokuk	877	15	29.8	+ 8.1	58	1	0	10	36	4.92	+ 3.61	1.67	11.0	7	5	14	9	nw.	J. T. Parker.
Stockport §	Van Buren	.....	9	30.9	.....	65	1	0	8†	39	3.87	.....	1.45	9.0	9	11	4	13	nw.	C. L. Beswick.
Storm Lake	Buena Vista	1,440	22	24.6	+ 9.4	53	1	− 3	10	34	1.35	+ 0.66	0.60	7.0	4	14	5	9	n.	Prof. Warren Ingold.
Stuart	Guthrie	1,216	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. P. Fox.
Tipton §	Cedar	807	12	30.6	+ 8.8	55	1†	3	10	28	4.74	+ 3.47	1.45	8.0	7	13	6	9	nw.	F. K. Gregg.
Toledo §	Tama	856	17	28.2	+ 8.8	54	1	− 7	10	38	3.26	+ 2.49	1.25	9.0	6	12	3	13	nw.	I. F. Giger.
Wapello §	Louisa	588	13	31.3	+11.0	58	17	4	8†	29	3.81	+ 2.42	1.34	2.0	7	13	6	9	nw.	G. W. Schofield.
Washington	Washington	769	29	31.1	+ 8.4	62	1	6	10	30	3.58	+ 2.36	.....	8.4	10	10	9	9	nw.	F. Sherman.
Waterloo	Black Hawk	862	28	28.2	+10.1	53	23	− 5	8†	48	2.88	+ 1.77	1.06	12.0	5	11	8	9	nw.	Ralph B. Slippy.
Waukee	Dallas	1,039	8	27.6	.....	53	24	− 3	10	37	3.04	.....	0.85	8.1	9	13	4	11	nw.	Samuel F. Foft.
Waverly §	Bremer	948	15	26.4	+ 8.9	52	24	−11	10	42	2.53	+ 1.39	1.47	9.3	3	17	4	7	nw.	Earl C. Moore.
Webster City §	Hamilton	.....	6	27.4	.....	52	1†	−10	10	45	2.05	.....	0.80	9.0	5	15	3	10	sw.	C. D. Carpenter.
West Bend §	Palo Alto	1,197	18	24.1	+ 7.7	50	1	− 9	10	45	1.34	+ 0.39	0.70	6.0	4	13	6	9	.....	Phil. Dorweiler.
Whitten §	Hardin	1,036	14	25.8	+ 9.5	51	24	− 8	10	37	1.97	+ 1.21	1.20	12.0	3	10	7	11	nw.	Dr. F. P. Butler.
Winterset §	Madison	1,129	20	30.4	+ 8.7	57	1	5	10	31	3.71	+ 2.84	1.40	8.5	9	8	8	12	nw.	Dr. Robt. S. Cooper
Missouri.																				
Gorin	Scotland	700	25	.....	.....	.....	.....	.....	.....	.....	2.79	+ 1.13	0.97	4.1	8	9	4	15	nw.	J. W. Pulliam.
Hannibal	Marion	534	19	35.4	+ 6.3	76	1	14	21	42	2.38	+ 0.78	0.71	6.5	10	11	3	14	nw.	U. S. Weather Bureau.
Louisiana	Pike	400	32	36.6	+ 8.8	79	1	8	23	55	3.02	+ 1.46	1.05	12.5	9	13	1	14	ne.	J. T. Farrell.
Mexico §§	Audrain	797	32	34.6	+ 6.0	79	1	7	21†	42	3.29	+ 0.79	1.06	15.5	10	14	1	13	nw.	J. F. Llewellyn.
Steffenville	Lewis	576	18	34.8	+ 8.4	74	1	10	21	43	2.93	+ 0.94	0.85	4.0	7	11	8	9	e.	Frank Hall.
Sublett	Adair	1,000	30	33.8	+ 9.6	66	1	8	22	34	3.87	+ 1.86	1.00	2.2	5	8	5	15	se.	Lewis Spriggs.
Vandalia	Audrain	776	.....	36.6[g]	.....	73	15†	8	21	43[g]	.....	.....	.....	.....	.....	11[i]	5[i]	3[i]	.....	C. B. Ellis.
Warrenton §§	Warren	865	21	36.0	+ 6.6	85	1	9	21†	47	3.19	+ 0.65	1.10	9.0	9	8	4	16	nw	Dr. J. H. Frick.
Indiana.																				
Collegeville	Jasper	.....	12	32.3	+ 8.0	60	17	4	10	31	2.92	+ 0.43	0.52	6.0	12	9	4	15	w.	Otto Miller.
Knox	Starke	716	6	31.2	.....	59	17	4	21	31	2.41	.....	0.88	8.3	10	4	12	12	w.	W. R. R. Tatman.
Laporte	Laporte	810	15	30.4	+ 7.8	55	17	5	9	29	2.26	− 0.62	0.75	10.5	7	5	9	14	nw.	Wm. M. Walton, jr.
Plymouth	Marshall	790	8	30.5	.....	58	17	7	10	3?	1.74	.....	0.53	6.8	10	6	8	14	sw.	J. W. Siders.
Illinois.																				
Aledo	Mercer	738	11	30.3	+ 7.0	57	17	0	10	34	2.99	+ 1.39	0.81	7.2	8	12	6	10	nw.	Wm. B. Frew.
Alexander	Morgan	670	18	35.6	+ 7.5	69	1†	11	21	42	1.26	− 0.66	0.43	6.5	10	11	2	15	nw.	George H. Hall.
Antioch	Lake	861	10	28.6	+ 7.4	50	16	− 2	10	38	2.88	+ 1.36	1.20	9.0	4	9	6	13	w.	J. C. James, jr.
Astoria	Fulton	650	11	33.7	+ 8.2	67	1	10	10	34	2.27	− 0.27	0.50	8.0	9	12	2	14	nw.	Ed. V. Bohl.
Aurora	Kane	687	32	30.2	+ 7.4	55	17	− 2	10	32	1.70	− 0.56	0.71	9.0	6	8	6	14	sw.	W. Holden.
Bement	Piatt	700	4	36.0	.....	72	17	11	10	41	1.88	.....	0.55	5.3	9	13	2	13	s.	Rev. C. S. Adams.
Bloomington	McLean	840	20	34.0	+ 7.9	63	1	8	10	33	1.51	− 0.71	0.53	5.0	6	14	1	13	nw.	Prof. H. N. Pearce.
Cairo	Alexander	359	33	43.1	+ 5.5	76	16	17	22	32	2.66	− 0.67	0.77	1.0	12	9	3	16	n.	U. S. Weather Bureau.
Carbondale	Jackson	412	6	42.0	.....	77	16	15	21	42	2.79	.....	1.51	2.0	7	11	2	15	sw.	State Normal University.
Carlinville	Macoupin	663	21	37.0	+ 7.4	74	17	11	23	47	2.14	− 0.56	0.57	8.4	7	13	6	9	nw.	R. O. Purviance.
Clinton	Dewitt	727	2	34.5	.....	66	1	10	10†	37	1.51	.....	0.51	4.0	9	11	4	13	nw.	J. F. Ziegler.
Coatsburg	Adams	763	19	33.8	+ 6.9	69	1	9	10	43	1.56	− 0.41	0.41	5.0	6	9	3	16	s.	Dr. J. R. Lambert.
Cobden	Union	656	28	42.7	+ 6.7	77	16	14	22	41	3.27	− 0.40	1.63	T.	4	14	2	12	n.	John Buek.
Dakota	Stephenson	929	6	27.6	.....	50	24	− 1	7	29	2.20	.....	0.75	9.0	8	8	8	12	nw.	Rev. G. W. Kerstetter.
Decatur	Macon	685	20	34.4	+ 7.8	70	17	9	21†	36	1.50	− 0.66	0.49	4.0	10	12	3	13	nw.	Prof. J. H. Conradt.
Dixon	Lee	725	21	28.1	+ 6.8	57	16	− 4	7	46	3.52	+ 1.84	1.77	8.0	5	11	6	11	.....	H. U. Bardwell.
Du Quoin	Perry	459	23	41.3	+ 7.8	76	1†	15	21†	39	4.02	+ 1.10	1.37	6.5	6	14	5	9	se.	G. H. Knetzger.
Dwight	Livingston	600	18	31.8	+ 5.9	62	17	3	10	28	1.84	− 0.28	0.62	7.0	9	7	8	13	nw.	Ed. O. Welch.
Elgin §	Kane	716	4	30.8	.....	54	17	0	10	32	2.81	.....	1.24	11.0	7	4	12	12	se.	Elgin Observatory.

TABLE 1.—*Climatological data for February, 1911. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Illinois—Continued.																			
Galva	Henry	842	19	29.0	+ 7.2	58	1†	0	10†	44	2.75	+ 1.11	0.84	11.0	7	14	2	12	n.	Prof. F. U. White.
Greenville	Bond	635	33	36.7	+ 6.0	74	17	10	21	32	3.05	− 0.14	0.85	8.5	5	11	5	12	w.	M. S. Oudyn.
Griggsville	Pike	650	26	36.4	+ 7.7	72	1	14	10	46	1.97	− 0.31	0.63	6.8	6	11	4	13	nw.	Geo. F. Kneeland.
Havana	Mason	475	19	35.4	+ 7.2	65	1	11	10	41	2.31	+ 0.26	0.83	4.3	8	10	9	9	w.	F. and C. Borgelt.
Henry	Marshall	500	23	31.6	+ 7.1	57	1†	0	7	30	1.91	+ 0.19	0.74	7.0	8	14	2	12	nw.	Dr. F. A. Powell.
Hillsboro	Montgomery	675	17	37.6	+ 8.0	76	17	12	21	36	2.78	+ 0.33	0.85	13.0	7	15	2	11	nw.	Ira L. Woodward.
Joliet	Will	541	20	29.6	+ 6.1	56	17	1	10	34	1.62	− 0.26	0.55	6.7	9	10	2	16	nw.	F. M. Muhlig.
Kishwaukee	Winnebago	730	23	28.2	+ 6.9	58	17	− 4	10	33	2.56	+ 0.48	0.98	14.0	9	9	6	13	w.	Geo. Stevens.
La Grange	Cook	657	19	30.0	+ 7.2	56	17	0	10	35	2.88	+ 0.90	1.20	17.3	8	7	7	14	sw.	Prof. F. E. Sanford.
La Harpe	Hancock	698	32	32.6	+ 5.6	65	1	7	10	37[e]	1.87	− 0.05	0.50	4.5	6	14	3	11	nw.	Geo. E. Campbell.
Lanark	Carroll	883	22	27.4	+ 6.4	50	24	− 9	10	33	2.59	+ 1.24	0.75	7.1	7	11	6	11	se.	M. N. Wertz.
La Salle	Lasalle	536	33	30.8	+ 5.8	59	17	4	10	25	2.16	− 0.28	1.12	7.4	9	8	5	15	w.	U. S. Weather Bureau.
Lincoln	Logan	482	23	34.8	+ 7.3	63	1	11	10†	37	1.91	− 0.17	0.40	5.5	10	11	4	13	nw.	Prof. C. S. Oglevee.
Martinton	Iroquois	633	24	31.8	+ 7.1	61	16	4	10	34	1.06	− 1.13	0.40	2.0	6	7	6	15	nw.	Jos. H. Peltier.
Mascoutah	St. Clair	425	21	40.2	+ 8.8	78	1†	10	21	46	2.89	− 0.80	1.31	8.5	7	11	8	9	nw.	Geo. Henrich.
Minonk	Woodford	745	18	32.2	+ 7.7	63	17	4	10	31	1.80	− 0.17	0.60	4.5	8	9	9	10	sw.	O. M. Davison.
Monmouth	Warren	784	19	31.5	+ 8.2	60	1	3	10	34	3.51	+ 1.81	0.89	12.0	9	12	4	12	nw.	Hugh R. Moffet.
Morrison	Whiteside	685	17	29.9	+ 8.7	55	17	− 6	10	32	3.52	+ 1.68	1.02	9.7	8	9	7	12	nw.	S. A. Maxwell.
Morrisonville	Christian	638	12	36.0	+ 7.9	75	17	9	21	42	1.54	− 0.37	0.46	3.6	8	13	4	11	nw.	J. D. Lowis.
Mount Vernon	Jefferson	511	17	38.8	+ 6.9	77	17	14	21	44	2.80	− 0.21	0.92	4.0	7	11	5	12	n.	Theo. P. Stelle.
Oregon	Ogle	702	2	28.0	.....	58	17	− 5	10	31	2.79	.....	1.22	10.2	6	7	1	20	w.	Samuel Ray.
Ottawa	Lasalle	500	25	31.0[d]	+ 6.0	58	17	2	7	30[e]	2.13	+ 0.05	0.50	3.0	8	6	2	20	nw.	Miss M. M. Harris.
Pana	Christian	692	25	36.8	+ 7.0	74	17	10	21	37[e]	2.87	− 0.10	0.85	13.0	8	18	3	7	nw.	C. W. Sibley.
Peoria	Peoria	609	33	32.4	+ 6.5	63	1	5	10	31	2.39	− 0.30	0.69	7.2	11	9	5	14	n.	U. S. Weather Bureau.
Pontiac	Livingston	546	9	33.6	.....	64	17	6	10	30	2.13	.....	0.60	8.0	10	10	4	14	sw.	Geo. Butterworth.
Riley	McHenry	956	52	27.6	+ 6.4	56	17	− 4	10	29	2.10	+ 0.39	0.75	7.8	7	7	6	15	nw.	John West James.
Rockford	Winnebago	763	19	28.2	+ 4.7	56	16	− 3	10	41	2.95	+ 0.72	1.15	11.5	7	11	0	17	.....	Hosmer C. Porter.
Rushville	Schuyler	670	20	34.8	+ 8.3	68	1	11	10	42	1.62	− 0.28	0.65	7.0	5	3	10	15	w.	H. F. Dyson.
St. Charles	Kane	700	16	29.4	+ 7.2	53	17	− 2	10	32	2.72	+ 0.34	1.00	14.0	8	9	6	13	nw.	Dr. Wm. H. Bishop.
St. Peter	Fayette	.....	9	38.4	.....	75	17	9	21	42	1.85	.....	0.50	6.0	7	12	4	12	se.	M. L. Lansford.
Sparta	Randolph	538	25	40.4	+ 7.3	75	1	11	21	43	2.52	− 0.17	1.40	6.5	8	10	6	12	nw.	Jas. A. Caldwell.
Springfield	Sangamon	644	33	35.5	+ 6.4	67	17	14	21	30	1.73	− 1.04	0.59	6.0	11	10	4	14	nw.	U. S. Weather Bureau.
Streator	Lasalle	626	18	31.8	+ 8.1	62	16	2	7	34	1.91	+ 0.20	0.80	9.0	5	13	10	5	nw.	Edw. F. Sweetser.
Sullivan	Moultrie	530	11	36.4	+ 8.8	75	17	11	21	38	2.20	− 0.07	0.80	4.0	5	12	8	8	nw.	C. A. Corbin.
Sycamore	Dekalb	855	31	28.4	+ 7.0	57	16	− 2	10	35	1.94	0.00	1.25	15.0	6	12	2	14	sw.	Miss E. J. Davis.
Walnut	Bureau	717	20	32.5[d]	+ 9.3	56	14†	9	21	26[d]	2.26	+ 0.39	0.87	8.8	7	10	6	12	w.	O. C. Nussle.
White Hall	Greene	573	3	36.2	.....	71	1†	10	21	48	2.67	.....	1.00	7.2	7	14	2	12	w.	Dr. R. A. Pritchett.
Windsor	Shelby	681	12	36.6	+ 7.8	74	17	10	23	36	1.91	− 0.38	0.42	6.2	9	10	5	13	nw.	Herbert Rose.
Winnebago	Winnebago	900	24	27.4	+ 6.8	57	17	− 7	10	29	3.13	+ 1.32	1.00	16.0	7	11	4	13	sw.	Frank Osborn.
Yorkville	Kendall	584	24	29.8	+ 7.7	57	17	− 2	10	27[d]	2.07	+ 0.08	1.00	10.0	8	8	8	12	w	Herman A. Grimwood.
Zion	Carroll	938	17	27.4	+ 6.9	49	24	− 4	10	36	2.64	+ 1.20	1.17	14.0	5	17	2	9	w.	Robt. F. Gillogly.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from the observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 5, Upper Mississippi Valley.*

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
North Dakota.																														
Amenia	Red	.20	.40				.05	.10									.10													0.85
Bottineau	Mouse	.06	.12		T.		.05	.08										T.												0.31
Cando	Sheyenne	.03														.12														0.15
Crosby	Mouse		.34	.06			.15								T.															0.55
Devils Lake	Sheyenne	.62	.10			.14	T.	.12								.44	T.									T.				1.42
Donnybrook	Mouse	.60	T.	T.			.25																							0.85
Dunseith	do	.30	T.	T.		T.	T.	.10																						0.40
Edmore	Sheyenne	.30														.40														0.70
Forman	do															T.														T.
Grafton	Red	.30		.14								T.				.27			T.											0.71
Granville	Mouse	.30						.02																						0.32
Hannah	Pembina	.20														.10														0.30
Hansboro	Red	.22				.09	.06									.03														0.40
Hillsboro	do	.80	.20				.05	.20								.10		.05												1.40
Lakota	Sheyenne	.10	T.	T.		T.	T.	.08								.25														0.43
Langdon	Pembina								.14					.26					.40						.19			.15		1.14
Larimore	Red																													
Lisbon	Sheyenne	.20	.20				.20	.10									.20	.10												1.00
McKinney	Mouse	.80																												0.80
Manfred	Sheyenne	.50				T.		.30								.30														1.10
Mayville	Red		.15					.10								.20														0.45
Minot	Mouse	.70	.20	.03			.06	.15																						1.14
Minto	Red	.58										.18			.05	.24														1.05
Oriska	Sheyenne			T.		T.	.01	.20									T.	.20												0.41
Park River	Red	.80	.02				.02	.20								.24														1.28
Pembina	do		.80			.20		.60						.30		.60					.15							.20		2.85
Power	Sheyenne	.20		.10												.10	.10													0.50
Pratt	Mouse																													
Towner	do	.60						.20																						0.80
University	Red	.87		T.			T.	.19							T.	.15		.05					.01							1.27
Wahpeton	do	.30				T.										.10														0.40
Walhalla	Pembina																													
Westhope	Mouse																													
Willow City	do	1.00	T.	T.																										1.00
Minnesota.																														
Albert Lea	Mississippi		T.					.10	T.						.60		.55													1.25
Alexandria ‖	do	.20					.10											.06												0.36
Angus	Red	.60		.05			T.	.20								.10		T.	T.											0.95
Bagley	do	.60						.10								.05	.06													0.81
Beardsley	Minnesota																													
Beaulieu ‖	Red																													
Bird Island	Minnesota		T.			.03	.07								T.		.02	.04												0.16
Caledonia ‖	Mississippi		T.				.40								.40												T.			0.80
Campbell ‖	Red	.20			T.		.10										.02											T.		0.32
Cass Lake ‖	Mississippi	.35	.25			T.	.05	.03								.15														0.83
Collegeville	do	.08				T.	.13									.13	.10													0.44
Crookston ‖	Red	.40	.40	T.	T.		.05	.30	.05									T.												1.20
Detroit ‖	do	*	.33	T.	T.	.05		.04		T.							.04				T.									0.46
Fairmont (near)	Minnesota					*	.80						T.	T.	.10		.45													1.35
Faribault	Mississippi		T.			.07	.11	.03		T.			.01	T.	.45		.31	.15									T.			1.13
Farmington	do	T.				T.	.05	.06					T.	.25	.40	T.	.14	T.												0.90
Fergus Falls	Red	.30			.02	.04	.01	.01	.01							.02											T.			0.41
Fort Ripley ‖	Mississippi	.05					.03						T.	T.	.04	T.														0.12
Fosston	Red	.65					.02	.14								.12	T.													0.93
Fram	do	.30					.35									T.														0.65
Glencoe	Mississippi																													
Grand Meadow	do		T.			.12	.13	T.					T.	T.	.08	T.	.40	.12									T.			1.45
Gull Lake Dam	do						T.							T.	.21															0.21
Hallock	Red	.60	.05	.10			.05	.40								.20														1.40
Halstad ‖	do	*	.80					.05																						0.85
Hinckley	St. Croix	T.					.20						T.			.15		.15												0.50
International Falls	Rainy	1.20	.60	.10			.30			.10				T.	.40			.20												2.90
Kelliher	Red	1.02						.35							.22	T.	T.													1.59
Lake Crystal	Minnesota					.04	.03	.10									.35	.14												0.66
Leech Lake Dam	Mississippi	.76	.04	T.			.03	.08							.48			T.	T.											1.39
Litchfield	do																													
Little Fork	Rainy	.85																												0.85
Long Prairie	Mississippi																													
Lynd	Minnesota						.41											.15												0.56
Mankato ‖	do						.20		.04							.15		.24												0.63
Mapleplain	Mississippi	.02	T.			.35	.10	.12		T.			T.	.02	.23	.01	.18	.02												1.05
Milaca	do						.20	.02					T.	T.	.48															0.70
Milan	Minnesota					.20	.10										.20	.10												0.60
Minneapolis	Mississippi	.01			T.	.33	.05	.01		T.			.01	.07	.21	T.	.18	.02												0.89
Montevideo ‖	Minnesota		T.				.30								T.			.25												0.55
Moorhead	Red	.32		T.		.04		.06								.08	.11	.02												0.63
Mora	St. Croix	.10					.20	.10					.02	.02	.27			.15												0.86
Morris	Minnesota	.01			T.	.10	T.						T.	T.	T.	T.	.20													0.31
New London	Mississippi		T.			.27									T.		T.													0.27
New Richland	Minnesota	T.				.11									.37	T.	.33													0.81
New Ulm ‖	do		T.				.30	T.	.05	T.						T.		.25												0.60
Osakis	Mississippi	.22					.15	T.						T.		T.		.06												0.43
Park Rapids ‖	do	.30	.18				.05	.05							T.		.01	T.												0.59
Pine River Dam	do	.18					T.							T.	.05	.30														0.53
Pokegama Falls	do	.63	T.				.03	.08		T.						.26			T.											1.00
Red Lake	Red	.57						.29									.22													1.08
Red Wing ‖	Mississippi		.02		T.	T.	.28		.04		T.				T.	.54		.28												1.16
Redwood Falls	Minnesota					.20	.60										.30													1.10
Reeds Landing ‖	Mississippi					T.	.08		.03							.12		.22													0.45
Rochester ‖	do						.40									.80		.45													1.65
Roseau	Red	.40					.09	.15									.03													0.67
St. Charles ‖	Mississippi		T.				.34								T.	.20		.20													0.74
St. Cloud	do	.01				T.	.15							T.	.03	.12		T.	.06												0.37
St. Paul	do	T.			T.	.30	.10	.01							.05	.25	T.	.16													0.87
St. Peter	Minnesota							.60		.08								.02													0.70
Sandy Lake Dam	Mississippi	.56					T.	T.								.15															0.71
State Sanatorium	do	.69												.16																	0.85
Stillwater ‖	St. Croix		.06				.35		.10						.35			.46													1.32
Taylors Falls	do	T.				.28		.25									T.														0.53
Warroad	Rainy	.50						.40								.04															0.94
West Concord	Mississippi					*	.60	T.								.75															1.35
Windom	Des Moines					.40	.10											.27	.11												0.88
Winnebago ‖	Minnesota						.52		.09							.25		.34													1.20

TABLE 2.—*Daily precipitation for February, 1911. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																									Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Minnesota—Con.																														
Winnibigoshish	Mississippi	.67	.09	T.			.05	.10						.01	.41		T.	.11												1.44
Winona	do		T.		T.	.14	.32	.01		T.				T.	.22		.18	.08												0.95
Worthington ‖	Des Moines						.75								T.		.03													0.78
Zumbrota	Mississippi																													
South Dakota.																														
Milbank ‖	Minnesota						.38											.07												0.45
Wisconsin.																														
Antigo	Wisconsin		T.			T.	.10	.10		T.			T.	T.	.30		.12	T.			T.					.02				0.64
Barron	Chippewa	T.					.24	.05						T.	.46		T.													0.75
Beloit	Rock					*	.68							.10	.70		*	.50												1.98
Big St. Germain Dam	Wisconsin	.03	.05				.08	.02		T.				.02	.55			.14		T.	T.					T.				0.89
Brodhead	Rock					.40	.50							.50	.63		.42	.45	.10											3.15
Burnett	do	T.			T.	T.	.46			T.			T.	T.	.92	T.	.59	.50	T.	T.	T.					.16				2.63
Cottage Grove	do					.08	.37	T.					T.	T.	.86		.63	.60	T.	T.	.04									2.58
Darlington ‖	do					*	.80							T.	2.00		2.00	.15								T.				4.95
Deerskin Dam	Wisconsin	.13	.18						.07						.25	T.	T.		T.		T.								T.	0.63
Delavan	Rock						.18								.80		.80	.27		T.	T.						.07			2.12
Dodgeville ‖	do						.84								.12		.28	.79	.24							.28				2.55
Downing	Chippewa																													
Eau Claire	do	T.	T.		T.		.37	.07		T.				T.	.65		.21	.11												1.41
Grand Rapids ‖	Wisconsin						.53		T.	T.					.11	.18		T.									.11			0.93
Grantsburg	St. Croix	T.					.30	.40					T.	T.	.10			.10												0.90
Hancock	Wisconsin						.40								1.30		.20	.15									.20			2.25
Hatfield	Black						.50								.45		.15	.40												1.50
Hayward	St. Croix	.20					.20	.30					T.		.30			.10												1.10
Hillsboro	Wisconsin	T.				*	.60						T.	*	.50		.15	T.			T.					.20				1.45
Koepenick	do	.10					.20	.10							.40		1.00										.10			1.90
Lac du Flambeau	Chippewa	.27					.21							T.	.90			.12												1.50
La Crosse	Mississippi	T.	T.		T.	.38	.23	T.		T.			T.	.37	.49	T.	.22				T.					T.				1.69
Lake Mills	Rock					.30	.20						T.	.02	.31		.48	.52		.01	.03				T.	.12				1.99
Lancaster	Mississippi					.65									1.00			.75									.46			2.86
Long Lake	Wisconsin	.10	.22				.07	.03		.02				.04	.49	T.	.02	.32		T.	T.									1.31
Madison	Rock	T.				.55	.28						T.	.40	.53		1.28	.28		T.	T.					.05	.03			3.40
Mather ‖	Wisconsin																													
Mauston	do						.60							*	1.30		.15	.15									.22			2.42
Meadow Valley	do					T.	.30											.05									T.			0.35
Medford	Black						.40							T.	.20		.50													1.10
Merrill	Wisconsin						.36						T.	T.	.40		*	.40												1.16
Minocqua	do	.15	.14				.07	.02	T.	T.				.02	.50			.15									.20				1.05
Mondovi	Mississippi		T.				.40	.10							.60		.18	.15												1.43
Mount Horeb	Rock					.25	.30						T.	T.	.92		1.05	.55	.12	T.							.20			3.39
Muscoda ‖	Wisconsin						.44							T.	.72	T.	.18	.46	.20	T.							.32	T.		2.32
Neillsville	Black						.35	T.		T.					.70			.47												1.52
New Richmond	St. Croix						.40								.30		.20													0.90
Osceola	do						.40	T.					T.	T.	.10			.30													0.80
Park Falls	Chippewa	.20					.25	T.					T.	T.	.55			.17	T.												1.17
Portage	Wisconsin					T.	.30							T.	1.00		.78			T.						.32	T.			2.40
Port Edwards	do	T.				.10	.20	T.		T.			T.	T.	.34		.04	.17									.05			0.90
Prairie du Chien ‖	Mississippi						.52				T.				.90		.06	.47	.18								.14			2.27
Prentice	Chippewa	.06					*	.30							.37												.02			0.75
Rhinelander	Wisconsin	.10	.15				.08	T.		T.				T.	.39		T.	.43									.02			1.17
Sauk City	do																													
Shullsburg	Mississippi					.81									1.06		1.04	.78	.24								.24			4.17
Solon Springs	St. Croix	.50						.50					T.		.30															1.30
Spooner	do	T.					.17	T.					T.	T.	.19			.19												0.55
Stanley	Chippewa	T.	T.			T.	.25	.03		T.			T.	T.	.47		.19													0.94
Stevens Point	Wisconsin						.20							T.	.40											.05				0.65
Sugar Camp Dam	do	*	.16				T.	T.							.48		.03	.21												0.88
Twin Lakes Dam	do	.15	.15				T.	.08							.40			.20			T.									0.98
Valley Junction	do		.03				.35	T.		.02					.45		.18	.23			T.						.08			1.34
Viroqua	Mississippi	T.	.02		T.	.25	.20	T.		T.			T.	.06	.74		.05	.17			T.						.12			1.61
Vudesare	Wisconsin	.15	.30					.05		.12				T.	.80		T.	.26		.03	.04						.05	.03		1.83
Watertown ‖	Rock						.70	.10						T.	.75		.14	.72	.14	T.	T.						.74			3.29
Waukesha	Fox						1.10						T.	*	.94		*	.41	.05	T.	T.						T.			2.50
Wausau	Wisconsin						.17		.06				T.		.39		.05	.20			T.						T.			0.87
Weyerhauser	Chippewa	.10	T.	T.	T.		.20	.14					.01	.02	.30			.04									T.			0.81
Whitehall	Mississippi		T.				.03	T.					T.	T.	.60		T.	.40												1.30
Iowa.																														
Albia ‖	Des Moines						.85								1.50		.60	1.60	.55		.10						.10			5.30
Algona	do					.50		T.							.45		.15	.10												1.20
Alta ‖	Raccoon					.10	.60								.12			.57												1.39
Amana	Iowa					.68	.19								1.50		.64	1.00	.05	.01						T.	.27			4.34
Ames	Skunk					.29	.15						T.	.04	.70	T.	.15	.35	T.							T.				1.68
Baxter	do					.30	.04						T.	.10	.70		.29	.80									.19			2.42
Belle Plaine	Iowa					.90								.06	1.07		.71	1.27								.19				4.20
Belmond	do					.50		.02					T.	.18	.66	T.	T.	.04													1.40
Bloomfield	Mississippi					.52							T.		T.		T.	.35		.30											1.17
Bonaparte	Des Moines					.40									.48		.52	1.20	.20	.12						.14	.28				3.34
Boone ‖	do						1.40								.70		.08	.20	.28											2.66
Britt	Iowa					.38		T.					T.	.05	.41	T.	.17	.09													1.10
Buckingham	Cedar					.37								1.15			.29	.54							20						2.55
Burlington ‖	Mississippi			T.			.65								.11			1.20	.50		.30						.33			3.09
Carroll ‖	Raccoon						.50								.52			.11	.10												1.23
Cedar Rapids ‖	Cedar		T.				.56		T.					T.	1.36		.19	.88	.30	T.									.28		3.57
Charles City	do						.73	.07	T.		T.				.43	.65		.10	.08												2.06
Clear Lake	do						.30	.15													.08									0.53
Clinton	Mississippi					1.25							T.	.70			.63	.80	.50							.20				4.08
Columbus Junction	Iowa					.70	.08							T.	1.10		.80	1.00	.40		.15						.25			4.48
Davenport	Mississippi					1.21	.03						T.	.60	.06		1.30	.60	.02	.07	T.	T.				.21	T.			4.10
Decorah	do					*	.75							.50			.10										.05			1.40
Delaware	do						.20								.98		.61	.75	.07								.29			2.90
Des Moines	Des Moines						.79	T.					T.	.52	.12		.63	.69								.16				2.91
Dubuque	Mississippi				T.		.94	.12			T.		T.	.61	.58	T.	1.33	.32		T.	T.					.14	.05			4.09
Earlham	Raccoon						.50							T.	.95		.37	1.09	.10	T.	T.					.05				3.06
Elkader	Mississippi						.58								.96		.25	.34								.21				2.34
Elma	Wapsipinicon		T.				.10						T.	.10	.85	T.	.12	T.												1.17
Estherville ‖	Des Moines							.45									T.	.55												1.00
Fairfield	Skunk						.95							.03	1.10		.88	1.22	.22	.25						.20	.05			4.90
Fayette	Mississippi						.82	.21			T.		T.	.21	1.07	.08	.22	.21								*	.29			3.11
Forest City ‖	Cedar						.40		T.						.28			.20												0.88
Fort Dodge ‖	Des Moines					T.	.60								.40			.08	.05											1.13
Fort Madison	Mississippi	.15			T.	T.								.89			T.	.87		.30						.40				2.61
Gilman	Iowa					1.00								1.65		.78	1.06									.28				4.77

TABLE 2.—*Daily precipitation for February, 1911. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Iowa—Con.																														
Grand Meadow	Mississippi		T.			.60	.20	T.		T.			T.	*	1.15	T.	.05	.25									.15			2.40
Greene	Cedar																													
Grinnell	Iowa					.80							T.	.12	1.00	T.	.52	1.50	T.	T.	T.						.35			4.29
Grundy Center	Cedar					.60	.40									.65		.40	.05							T.				2.10
Guthrie Center	Raccoon					.86	.16						T.	.12	.73		.29	.56		T.	T.	T.								2.72
Hampton	Cedar					1.30								.78		.06	.20	.20												2.54
Humboldt	Des Moines					.65	.18								.52		T.		.24											1.59
Independence	Wapsipinicon					.30		T.							1.25		.33	.38									.10			2.36
Indianola	Des Moines					.65	.05							.13	.54		.23	1.89	.55	.01	T.					.50	.06			4.61
Iowa City	Iowa						.55								1.42		.20	1.92	.50		T.						.23			4.82
Iowa Falls	do						.60	T.	T.					T.	.56		.05	.21	.16											1.58
Jefferson	Raccoon					.46								.02	.61		.43	.30												1.82
Keokuk	Mississippi			T.		.52								.24	.02		.20	.92	.06	.13						.26				2.35
Keosauqua	Des Moines					T.	.72							T.	.47	T.	.13	1.35	.54		.18						.39			3.78
Knoxville	do					.68								.15	.85		.82	1.20	.16	.04						T.	.14			4.04
Lacona	do					.54	.06							.18	.92		.88	2.00		.10						.68	.10			5.46
Le Claire	Mississippi			T.			.40	T.							.68		.02	1.90	.57		.05	T.					.20			3.82
Marshalltown	Iowa						.85		T.		T.			.01	.93	T.	.25	.55	.38	T.	T.						.25			3.22
Mason City	Cedar					.40		T.						.80			.17													1.37
Mount Pleasant	Skunk					.60	.10							T.	.68		.65	1.31	.27	.27	.03						.58			4.49
Muscatine	Mississippi						.70								.90		.10	1.26	.63		.08						.24			3.91
New Hampton	Wapsipinicon					.40	.40						T.	T.	1.21	T.	.28	T.												2.29
Newton	Skunk					1.00									1.16		.37	1.04												3.57
Northwood	Cedar					1.00		.10						.70	.05	.03	.60	.05												2.53
Olin	Wapsipinicon																													
Osage	Cedar				1.00										1.00	T.	.20													2.20
Oskaloosa	Des Moines					.36								1.22		T.	1.00	1.28	1.16	.02						.21				5.25
Ottumwa	do					1.50									.02		2.50	.60								.30				4.92
Pella	do	T.				.95	.20	T.						T.	1.06		1.05	1.24	.07	.01						.02	.26			4.86
Perry	Raccoon					.50	.10						.80	.30			.40	.50												2.60
Plover	Des Moines					.60							.50				.30													1.40
Pocahontas	do					.60	.14							.04	.42		.14	.38												1.72
Ridgeway	Mississippi					.70		T.		.03			.01	1.00	.23	.12	.33	.07												2.49
Rockwell City	Raccoon					1.20							.35	.65	.20	.35	.65													3.40
Sac City	do					.60							T.	T.	.45			.40		T.										1.45
St. Charles	Des Moines					1.00	.47						T.	.16	.54	.02	.82	1.00	.08	T.						.14	T.			4.23
Sigourney	Skunk					.67								T.	1.67		.96	1.10	.28	.08							.16			4.92
Stockport	do					.36	.05							T.	.66		.59	1.45	.28	.08						.05	.35			3.87
Storm Lake	Raccoon					.60	.10									.49	.16													1.35
Stuart	do																													
Tipton	Cedar					*	.75								1.45		.95	1.03	.06	T.	T.					T.	.50			4.74
Toledo	Iowa					.60	.30							T.	1.25		.20	.87	.04											3.26
Wapello	do					.62								T.	.55		.53	1.34	.42	.22							.13			3.81
Washington	Skunk					.75								*	.95		*	1.12	*	.55	*	.09				.12				3.58
Waterloo	Cedar						1.06	T.					T.	T.	1.05		.15	.36								T.	.26			2.88
Waukee	Raccoon					.80	.04						.01	.11	.74	.01	.28	.85	T.	T.	T.					.20	T.			3.04
Waverly	Cedar					.73								1.47				.33												2.53
Webster City	Des Moines					.80		T.					T.	.10	.63		.31	.21												2.05
West Bend	do					.70							.02	T.	.40	T.	.22													1.34
Whitten	Iowa					1.20		T.					T.	T.	.25		T.	.52												1.97
Winterset	Des Moines					.60	.15						T.	.02	.90		.50	1.40	.08	T.	T.					.02	.04			3.71
Missouri.																														
Gorin	Mississippi					.30							.01		.33		.50	.97	.23	.11						.34				2.79
Hannibal	do					.71								.34	.08		.05	.17	.53	.26	T.					.21	.01	T.	.02	2.38
Louisiana	do					.10	.42							T.	.28	.02	.10		.82	1.05						T.	.20		.03	3.02
Mexico	do					.05	.55					.01		T.	.42	.02			.67	1.06	.24						.18		.09	3.29
Steffenville	do					.65								T.	.25			.85	.45	.30							.40	.03		2.93
Sublett	do					2.00									T.		.25	1.00	.02	.20						.40				3.87
Vandalia	do																													
Warrenton	do						.26						T.	T.	.27		.03	.30	.60	1.10	.40						.08		.15	3.19
Indiana.																														
Collegeville	Iroquois			T.	.20		.40	.30	.15	.10				.30	.52		.10	.15	.45		.05					.20			2.92
Knox	Kankakee				.12	T.	.88							.02	.45		.11	.08	.42		.17	.08				.08			2.41
Laporte	do			T.	T.	T.	.75				T.		T.		.46		.07	.22	.35			.30				.11			2.26
Plymouth	do			T.	.04	T.	.53			T.				.02	.41		.06	.12	.34		.11	.04	T.			.07			1.74
Illinois.																														
Aledo	Mississippi					.52	.12							T.	.50		.52	.81	.31	.02							.19			2.99
Alexander	Illinois			.02		.17	.26							T.	.22		.03	T.	.27	.14	.11						.03		.01	1.26
Antioch	do						.60	1.20							.58			.50												2.88
Astoria	do			.04		.35	.33							T.	.37		.08	.10	.50	.25						T.	.25		T.	2.27
Aurora	do					*	.48								.28		*	.46	.25		.06						.17			1.70
Bement	Mississippi				.02	.08	.44						.07				.55		.27		.30						.05		.10	1.88
Bloomington	Illinois			T.		.36	.17						T.	T.	.52		.05	.06		.35										1.51
Cairo	Mississippi			T.		.51	.02	.66				.03	T.	.01	.31		.01		.17	.65	T.	T.				.01	.01		.27	2.66
Carbondale	do			T.		T.	.22	T.				T.		T.	.31		.40		16	1.51	.09						T.		.10	2.79
Carlinville	Illinois					.10	.25								.40		.25		.57	.52									.05	2.14
Carlyle	Mississippi					.15	.30						.10	.15			.35		.25	.80									.50	2.60
Chester	do				T.		.14						.02		.16		.14	.42	.10	1.36	.54						T.		.24	3.12
Clinton	Illinois			.12	T.	.12	.39								.22		.06	T.	.34	.04	.18						.04		T.	1.51
Coatsburg	Mississippi					.30									.40		.05	.41	.30								.10		T.	1.56
Cobden	do					.17						T.		.55			.92		1.63										T.	3.27
Dakota	do					.15	.50							.04	.75		.26	.36	.04	T.	T.						.10			2.20
Decatur	Illinois			.03		.20	.16								.20		.10	.12	.29	.20	.10	T.							.10	1.50
Dixon	Mississippi						.78	T.							.38	T.		1.77	.44		T.						.15			3.52
Duquoin	do					.36		T.				T.	T.	.21			.78		.90	1.37									.40	4.02
Dwight	Illinois			.03		.24	.38						T.	T.	.21		.06	.22	.46	T.	.08						.16			1.84
East St. Louis	Mississippi						.50								.24		.25		.28	.92	.50								.22	2.91
Edwardsville	do					.30	.15										.17		.59	.82									.24	2.27
Elgin	Illinois					.06	1.24						T.		.87		.08	.43		T.	.02						.11			2.81
Galva	do						.84								.38			.79	.46	T.	.11	.01					.16			2.75
Grafton	Mississippi						.42								.12		.04	.72	.26	.68	.45								.10	2.79
Greenville	do					.25	T.										.85		.45	.75							T.		.75	3.05
Griggsville	Illinois				T.	.46								T.	.26		.12	T.	.63	.33	T.						.17		T.	1.97
Havana	do			.06		.83								T.	.35		.21	.12	.37	.19						.18			T.	2.31
Henry	do					.42	.32						T.	T.	.13		.05	.28	.42	T.	.05						.24			1.91
Hillsboro	Mississippi						.05	.40	T.						.08		.55			.65	.85								.20	2.78
Joliet	Illinois			T.		.50	.05		T.				T.	.02	.18		.06	.52		.12						.04	.13			1.62
Kishwaukee	Mississippi					.40	.58						.01	.01	.53		.14	.53	.25	T.	T.					.11				2.56
La Grange	Illinois					.30	1.20	T.						T.	.36		.07	.39	.28		.12						.16			2.88
La Harpe	do			T.		.25								T.	.37		.13	.42		.20						.50			1.87
Lanark	Mississippi			T.		.06	.22	T.		T.					.75		.48	.63	.25	T.	T.						.20			2.59
La Salle	Illinois			T.		1.12	T.			T.			T.	.05	.15		.08	.47	.05	.11	T.					.10	.03			2.16
Lincoln	do			.20		.10	.40						T.	T.	.31			.11	.30	.03	.35					.10			.01	1.91

TABLE 2.—*Daily precipitation for February, 1911. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Illinois—Continued.																														
Loami	Illinois			T.		.30	.27							T.	.25		T.		.55	.25	T.					T.	T.		.05	1.67
Martinton‖	do			.23										.25			.05	.40		.10						.03				1.06
Mascoutah	Mississippi						.41								.26		.24		.46	*	1.31								.21	2.89
Minonk	Illinois			.04		.15	.60						T.	T.	.13		T.	.19	.45	.04						T.	.20			1.80
Monmouth	Mississippi					.77	.12							T.	.42		.88	.59	.30	.13	.03						.27			3.51
Morrison	do					.30	.46								.61		.55	1.02	.36	T.	.02						.20			3.52
Morrisonville	Illinois			T.		.02	.44								.23		.25		.33	.20	.02						T.		.05	1.54
Mount Vernon‖	Mississippi						.46								.36			.30	.15	.92	.45								.16	2.80
Oregon	do					.70							T.	T.	.65		.20	.82	.40	T.							.02			2.79
Ottawa	Illinois					.38	T.							.50	.18		.06	.31	.40	.05						.25				2.13
Pana	Mississippi				T.	.03	.48	T.									.59		.40	.85	.45						.04		.03	2.87
Peoria	Illinois			.19		.66	.03						T.	.09	.19		.20	.58	.07	.19	T.					.15	.04			2.39
Pontiac	do			.12		.20	.40						T.	.01	.20		.06	.20	.44	T.	.30						.20			2.13
Riley	Mississippi			T.		*	.75						T.		.49		.14	.41	.28	T.							.03			2.10
Rockford‖	do						1.15	.04					.01	T.	.61	T.	T.	.69	.35		T.	T.					.10			2.95
Rushville	Illinois					.30								.65				.12		.40						.15		T.		1.62
St. Charles	do					*	1.00			T.			T.		.50		.07	.60	.36	.04	T.	T.					.15			2.72
St. Peter	Mississippi			T.		T.	.41	T.							.18	T.	.22		.38	.50							.06		.10	1.85
Sparta	do			T.		T.	.23	.03	.01			T.		T.	.19		.24			1.40	.23								.19	2.52
Springfield	Illinois			.03		.57	.02						T.	.05	.23		.10	.10	.21	.32	T.					.02	T.		.08	1.73
Streator‖	do						.80								T.			.31	.53		.09						.18			1.91
Sullivan	Mississippi			T.		T.	.55										.45		.80	.30									.10	2.20
Sycamore‖	do						1.25								.05			.35	.05		.12						.12			1.94
Walnut	do			T.		*	.87						T.		.39		.30	.45		T.	.10						.15			2.26
Warsaw‖	do						.80							.40			1.00	.83	.01	.05							.30			3.39
White Hall	Illinois					.37								T.	.35		.21		.49	1.00	.15					T.	.10			2.67
Windsor	Mississippi			T.		.02	.40								.28		.20		.29	.40	.20						.02		.10	1.91
Winnebago	do					*	1.00								.63		.20	.90	.10	T.							.30			3.13
Yorkville	Illinois					.10	1.00						T.	T.	T.	T.	.10	.12	.40	.02	.08						.25			2.07
Zion	Mississippi					.40	.55								.40		1.17			T.							.12			2.64

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 5, Upper Mississippi Valley.*

Date.	North Dakota.										Minnesota.															
	Bottineau.		Devils Lake.		Lisbon.		Minot.		Pembina.		Collegeville.		Crookston.§§		Grand Meadow.		Montevideo.§§		Moorhead.		New Ulm.§§		Pine River Dam.		St. Paul.		Winnibigoshish.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	− 5	−10	− 2	−19	23	−10	− 5	−12	2	−16	36	23	16	8	40	29	38	23	24	− 7	41	24	28	18	36	18	26	8
2....	− 7	−20	2	−23	20	−13	− 2	−22	− 8	−20	31	2	0	−17	29	4	21	− 6	10	−15	24	− 2	21	−13	22	6	14	−16
3....	4	−24	12	−18	23	−13	21	−17	0	−18	22	6	4	−18	33	9	14	0	8	−14	16	− 2	20	− 5	30	7	14	−11
4....	0	−21	2	−19	20	−13	− 3	−17	8	−14	12	1	− 5	−15	22	5	12	− 3	12	−17	21	3	18	− 8	16	5	− 1	−15
5....	10	−22	6	−19	10	−14	12	−19	4	−22	11	− 7	13	−20	15	7	12	− 5	12	−18	18	8	8	−25	16	2	12	−28
6....	15	−10	16	6	22	− 8	18	− 8	22	−29	22	8	18	−14	25	− 1	21	5	20	10	25	4	20	8	23	12	22	10
7....	5	− 4	13	0	28	10	23	− 8	12	−10	24	12	20	12	26	1	30	9	19	− 1	29	9	21	9	26	11	21	12
8....	12	−10	16	2	30	0	25	1	8	−10	35	13	18	−10	31	2	39	5	26	− 2	37	5	31	−18	35	10	28	− 6
9....	9	−11	6	−13	23	− 3	20	− 8	12	−16	33	7	3	− 6	22	− 1	23	5	12	−11	18	10	23	2	25	3	25	− 3
10....	11	−10	13	− 6	27	−15	27	− 7	10	−12	20	− 2	20	−16	23	− 5	33	3	24	−14	30	− 7	18	−25	21	− 5	18	−20
11....	14	− 8	13	− 4	38	− 5	23	− 5	20	− 8	36	10	11	− 6	38	22	38	10	20	0	38	14	30	− 5	37	19	29	− 3
12....	22	−10	22	− 1	25	6	20	− 7	18	− 6	38	15	32	− 3	36	30	41	12	33	0	39	11	31	− 5	36	24	32	− 4
13....	25	− 2	27	6	30	7	35	10	24	0	39	28	23	2	36	31	35	23	33	17	38	27	37	29	37	34	35	27
14....	30	− 1	26	0	31	8	33	11	18	6	37	31	28	15	38	32	33	28	26	14	38	31	35	30	38	33	35	30
15....	20	9	28	1	33	9	28	16	15	− 2	34	27	32	15	36	30	35	25	32	23	37	32	31	23	37	32	30	22
16....	16	− 2	20	− 2	23	0	27	− 3	10	− 8	35	30	20	4	35	33	35	28	23	5	35	31	33	26	37	33	30	27
17....	9	− 2	21	− 2	23	2	22	3	− 6	−12	35	27	22	4	34	32	32	20	20	2	29	29	33	23	35	27	29	17
18....	18	−10	10	−10	20	− 3	19	− 5	8	−20	33	8	10	2	32	21	21	3	16	− 4	26	19	25	0	27	14	23	− 4
19....	9	−15	3	−18	20	−15	14	−12	14	−12	28	2	3	−18	24	14	17	− 5	6	−13	23	12	20	−12	23	8	24	−20
20....	15	−15	7	−11	18	−13	15	− 8	22	− 8	21	2	1	−17	16	8	11	− 6	5	−10	19	− 1	13	− 6	17	4	18	−14
21....	10	− 9	13	− 9	23	−12	22	− 6	15	− 2	23	1	20	−16	25	3	27	− 9	22	−10	16	− 4	13	− 6	28	2	27	− 8
22....	14	−11	21	0	27	− 2	29	4	20	− 8	33	10	22	− 2	33	9	21	5	24	2	30	− 2	28	6	34	13	32	− 1
23....	21	2	25	4	35	0	32	5	18	−10	38	13	28	− 8	40	14	42	7	33	− 5	40	9	38	3	40	13	36	4
24....	34	− 1	33	12	40	0	35	15	10	− 6	44	21	34	− 6	47	23	36	21	39	10	47	10	41	13	44	26	42	14
25....	32	0	31	1	38	14	31	7	16	−12	43	29	29	10	44	33	43	22	30	16	47	22	40	11	44	31	40	13
26....	8	4	12	−10	27	8	15	3	24	− 8	40	12	6	0	34	20	22	14	16	− 6	27	24	33	3	37	8	30	2
27....	4	−22	4	−19	22	−10	15	12	16	−10	18	− 2	8	−18	30	2	21	− 3	12	−15	24	2	13	−14	18	1	13	−21
28....	17	−22	20	− 8	.....	9	21	−13	−12	− 8	32	3	24	−18	27	5	35	− 2	31	− 6	37	2	26	− 6	32	5	27	− 9
Mns..	13.3	−9.2	15.0	−6.4	25.9[a]	−2.7	20.4	−4.1	12.3	−10.8	30.5	11.8	16.4	−5.6	31.1	14.7	28.1	8.2	21.0	−2.5	30.3	11.4	26.0	2.0	30.4	14.1	25.4	0.1

Date.	Wisconsin.												Iowa.													
	Delavan.		Eau Claire.		La Crosse.		Madison.		Mauston.		Spooner.		Wausau.		Algona.		Cedar Rapids.§§		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	35	21	35	26	39	26	36	31	38	26	32	9	35	21	46	21	54	29	45	16	58	29	55	19	47	30	71	36
2....	37	24	34	22	27	17	33	22	36	19	20	3	29	15	24	3	27	15	26	7	32	18	29	10	33	17	52	18
3....	34	23	34	20	35	18	32	23	37	24	27	2	30	18	24	8	39	14	36	10	38	24	41	20	40	23	40	25
4....	32	17	30	7	24	10	30	13	34	10	12	− 4	31	3	.....	.....	32	14	24	8	35	15	36	15	30	13	40	20
5....	21	9	17	0	18	9	22	8	22	5	15	−12	15	− 5	20	11	24	14	19	12	25	19	25	20	23	14	33	25
6....	26	12	26	13	25	9	22	8	22	16	20	4	20	10	22	10	25	18	24	0	28	15	26	16	24	13	35	25
7....	26	13	24	4	24	7	23	5	25	− 6	23	6	20	10	32	8	26	3	28	4	29	6	31	16	29	2	31	23
8....	32	7	34	2	30	8	30	13	26	8	30	1	30	10	33	10	34	2	34	− 9	34	9	38	8	34	0	38	15
9....	27	14	29	12	25	8	22	8	25	16	28	5	28	9	26	8	21	1	21	− 1	27	11	29	13	27	11	33	23
10....	20	− 4	18	− 8	21	− 2	18	0	22	− 4	16	−14	32	− 3	24	− 9	31	0	21	−10	28	3	39	4	21	0	37	11
11....	42	7	41	11	43	14	41	11	44	10	32	1	39	9	41	22	44	− 3	42	20	45	28	40	37	44	19	51	31
12....	37	34	38	25	38	35	37	33	40	35	36	8	41	11	37	31	39	29	36	32	40	35	40	35	39	35	44	39
13....	36	33	37	34	39	35	36	33	40	34	38	33	40	33	36	33	48	35	39	34	46	35	45	35	38	35	56	35
14....	43	34	36	32	37	35	38	34	39	34	36	28	36	30	36	32	39	35	36	34	51	38	41	32	46	37	50	39
15....	36	33	35	32	38	35	35	33	36	33	35	27	33	28	36	31	40	34	37	33	42	35	43	32	39	35	55	36
16....	39	32	38	33	38	33	37	32	35	31	35	29	34	31	36	32	40	34	37	34	58	35	42	37	40	36	67	39
17....	49	32	36	32	38	32	34	32	36	32	36	23	35	32	34	30	38	36	35	32	58	34	39	33	38	34	62	37
18....	35	26	35	18	32	26	32	24	35	27	27	6	36	17	31	19	34	32	32	24	38	30	34	27	35	29	37	34
19....	27	20	28	12	26	18	25	18	30	15	21	− 1	30	8	26	15	29	26	24	18	30	23	27	23	29	21	34	24
20....	28	14	22	7	23	9	21	10	20	10	13	− 4	23	5	20	2	26	18	21	9	32	18	27	13	27	17	27	16
21....	26	4	30	1	30	6	26	4	27	4	26	− 7	26	− 3	29	− 1	28	11	26	5	34	11	29	9	28	8	24	14
22....	32	17	35	12	36	16	32	18	35	16	30	4	33	14	35	11	37	10	34	13	39	19	38	18	38	19	36	20
23....	42	14	44	12	45	15	44	20	42	15	39	9	39	15	41	12	41	17	41	11	42	23	41	18	43	20	41	23
24....	49	24	48	12	51	29	50	30	48	27	42	2	42	25	51	20	51	19	52	21	50	27	54	24	50	30	51	26
25....	47	29	49	26	50	33	45	29	45	32	41	26	45	28	46	29	46	25	45	28	47	32	46	32	47	31	50	33
26....	41	36	42	22	38	21	37	23	42	28	37	12	43	28	37	17	51	29	35	15	42	32	36	25	41	26	40	33
27....	36	19	24	4	24	11	23	15	28	11	14	− 6	30	7	22	4	25	25	23	7	35	20	26	12	26	18	33	21
28....	26	11	32	4	30	11	25	12	25	9	28	− 5	25	− 1	32	7	27	15	30	10	28	20	30	18	26	16	29	22
Mns..	34.3	19.8	33.2	15.2	33.0	18.7	31.6	19.4	33.4	18.5	28.2	7.3	32.1	14.1	32.5[a]	15.4[a]	35.6	19.2	32.2	14.9	39.0	23.0	36.7	21.5	35.1	21.0	42.8	26.5

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 5*—Continued.

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
					Cairo.		Greenville.		La Salle.		Monmouth.		Mount Vernon.§§		Peoria.		Springfield.		Winnebago.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	76	34	39	21	75	45	70	38	50	32	60	33	74	30	63	32	67	37	40	30
2	34	19	47	24	66	34	56	25	35	25	53	19	52	42	32	22	42	22	40	23
3	44	28	46	24	51	33	38	26	36	26	36	22	50	31	39	28	41	26	34	23
4	42	21	34	25	47	35	40	24	35	17	37	16	48	30	36	18	38	22	33	14
5	34	27	38	28	52	37	34	31	26	19	30	22	60	25	30	24	33	28	25	13
6	36	27	28	18	50	30	37	29	27	12	29	23	49	32	33	16	35	28	26	10
7	33	26	27	17	44	30	38	26	29	5	29	9	52	28	29	10	33	24	25	0
8	40	20	30	24	41	32	38	26	36	15	36	8	40	27	37	16	37	24	32	3
9	34	22	27	5	50	31	42	26	28	12	29	19	40	25	29	14	34	22	26	13
10	39	16	26	20	41	27	36	17	25	4	29	3	42	19	30	5	35	15	22	− 7
11	49	36	41	12	40	33	46	28	45	21	46	22	40	21	46	28	46	30	41	13
12	44	40	37	30	44	38	40	37	38	35	40	35	45	32	39	35	40	37	37	34
13	60	39	38	30	62	42	56	40	46	35	43	33	60	33	50	36	58	37	37	33
14	56	36	48	35	66	49	51	40	50	38	50	38	63	34	54	38	56	42	44	35
15	67	37	40	32	74	45	64	34	40	35	49	34	70	35	54	35	58	38	37	33
16	69	47	49	34	76	57	68	50	57	34	52	35	74	36	60	39	66	49	40	33
17	68	37	55	36	72	59	74	50	59	34	58	37	77	38	63	36	67	39	57	33
18	37	32	36	30	62	37	50	31	37	30	37	33	55	40	38	31	39	33	35	25
19	32	23	30	17	37	30	32	25	30	22	33	23	35	29	31	21	34	23	27	20
20	28	18	31	22	30	24	30	16	29	20	31	12	23	20	29	18	28	21	26	16
21	23	14	27	10	28	20	27	10	28	11	28	10	26	14	24	10	24	14	27	6
22	35	18	29	17	36	17	31	14	37	21	36	18	32	15	36	19	34	20	35	16
23	40	16	40	15	42	25	38	16	42	22	43	19	40	16	40	19	39	24	41	17
24	45	24	45	27	50	27	40	21	48	29	52	25	48	16	49	27	48	27	49	26
25	48	30	49	36	52	36	50	27	47	30	46	28	56	24	49	28	51	29	49	27
26	40	30	45	30	62	39	52	40	43	30	41	32	60	30	42	29	43	34	41	31
27	34	23	30	20	48	35	43	26	32	24	34	19	46	34	34	23	37	26	32	19
28	30	23	29	20	38	29	35	26	27	22	29	20	34	27	31	23	30	25	26	16
Means	43.5	27.2	37.2	23.5	51.3	34.9	44.9	28.5	37.9	23.6	39.9	23.1	49.7	28.0	40.2	24.3	42.6	28.4	35.1	19.8

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT NO. 6, MISSOURI VALLEY.

MONTROSE W. HAYES, District Editor.

GENERAL SUMMARY.

Between that part of the district with elevations of more than 2,000 feet and the portions below that elevation there was an unusually marked difference in weather conditions. Mild weather and considerable cloudiness attended by more than the seasonal amount of precipitation prevailed in the lower elevated territory; while in most of the higher country the temperatures were below the February normal; the sunshine was abundant, and, except over the mountains, the precipitation was deficient. Outdoor work in Kansas, Iowa, and Missouri was interfered with by the wet weather, and in Montana and North Dakota very little could be done on the Government irrigation projects on account of the low temperatures. In the remainder of the district the conditions were more favorable for outdoor occupations than they usually are in February.

TEMPERATURE.

All of the stations in that part of the drainage area lying in Colorado, Wyoming, Montana, and North Dakota had temperatures below zero. In South Dakota there were some stations in the Black Hills and in the extreme southeastern part of the State at which the lowest thermometer readings were zero or slightly above, but in the remainder of the State the weather was colder. The lowest temperatures for the month in the lower part of the drainage area ranged from 16° above to 15° below zero. There were four periods of cold weather, but none covered the entire district. The first one, on the 2d, affected North Dakota principally. The second was more general, but was felt to a greater extent in Iowa than in any other State west of the Mississippi River. On the 21st the third covered South Dakota, Nebraska, Kansas, and Missouri, while the last one, on the 28th, was confined to Montana and Wyoming. The lowest temperature of the month was 40° below zero, on the 28th, at Grayling, Mont., and Crazy Creek, Wyo. On the 1st a decided atmospheric depression, with its center in the Missouri Valley just above Kansas City, gave warm southerly winds over a large part of Missouri and eastern Kansas, and at some of the stations in this area the high temperature record for February was broken. In Montana, Wyoming, Colorado, and Nebraska the highest temperatures occurred on the 11th and 12th. The other warm periods were rather local. The highest temperature of the month was 87° at Arthur, Mo., on the 1st. The departures from the normal temperature for the month ranged from a daily excess of 11.5° at Bedford, Iowa, to a daily deficiency of 9.6° at Havre, Mont.

PRECIPITATION.

The precipitation was above the normal in the mountains of Montana, Wyoming, and Colorado, in the Black Hills, eastern South Dakota, eastern Nebraska, Kansas, Iowa, and Missouri. The region of the greatest amounts embraced the western half of Missouri, eastern Kansas, southeastern Nebraska, and southern Iowa. Some of the stations in this area had more than four times as much snow and rain as is usual in February. From the 2,000-foot contour, which may be described as a line running in a generally north and south direction and dividing the Dakotas and Nebraska into east and west halves, to the base of the mountains there was a slight deficiency in the precipitation. In Montana, Wyoming, and North Dakota the amounts were well distributed through the month. In Colorado there were local falls of snow during the first seven days and fairly general falls from the 16th to the 19th and from the 25th to the 27th. There was snow throughout the district, and on the 19th it was particularly heavy in that part of the drainage area lying below Omaha. At the end of the month, however, no snow remained on the ground, except in the extreme western and northwestern sections. The heaviest monthly precipitation was 7.45 inches at Unionville, Mo., and the heaviest in 24 consecutive hours was 3.30 inches at Fort Scott, Kans. The heaviest monthly snowfall was 43 inches at Elk Mountain, Wyo.

MOUNTAIN SNOWFALL.

Montana.—The February snowfall was above the normal over the greater portion of the Main Range and the Gallatin, Judith, Bridger, Little Belt, and Crazy Mountains. It was comparatively light, as a rule, in the Beartooth, Tobacco Root, Snowy, Madison, and Ruby ranges. The temperature conditions were exceptionally favorable for solidifying and conserving the snow in the higher mountains. The warm days during the first part of the month reduced the snow in most places to almost the consistency of ice, but the thawing was not sufficient to cause loss by run-off. At the close of February practically the entire snowfall of the preceding four months remained on the ground, and it is the consensus of opinion that unless the spring months should be abnormally warm there will be an abundant supply of water for irrigation and other purposes.—*R. F. Young, Section Director.*

Wyoming.—The depth of snow in the mountain districts of the State was not materially increased during the month, as the new fall hardly more than compensated for the settling of that which was on the ground at the close of January. However, the water prospect is better now, as the snow is settled and packed and is in good condition to be conserved till late summer. While there seems to be less snow than usual over the eastern slope of the Big Horns, good depths exist in the higher portions of those mountains, and the ice in the streams is thicker than usual. Good depths have accumulated in the Medicine Bow and Sierra Madre Mountains at the headwaters of the Laramie and Platte Rivers. An increase of 15 inches in depth was reported from an elevation of 10,500 feet in the Medicine Bow Mountains.—*W. S. Palmer, Section Director.*

Colorado.—The last half of February was stormy, and valuable additions to the stock of snow in the mountains were made on all watersheds. The fall, as shown by the records at the observation stations, was above the normal for February in the region drained by the South Platte,

except in the western part of Estes Park. As a whole the snow is loosely packed on the eastern slope. The snow scales on the South Platte watershed showed an average depth of 21 inches at the end of the month; this is 6 inches more than was on the ground at the same time last year. Over the North Platte watershed the average depth was 22 inches, or 2 inches more than at the same time last year.—*F. H. Brandenburg, District Forecaster.*

South Dakota.—The snow on the ground at the end of the month ranged in depth from 6 to 24 inches in the more elevated portions of the Black Hills.—*S. W. Glenn, Section Director.*

RIVERS.

The streams above the 3,000-foot contour were low or frozen throughout the month. In the lower elevated country, where the precipitation was greater and the weather mild, the stages were quite normal. There was very little floating ice; in the Mississippi opposite St. Louis light ice, that caused no inconvenience, was running from the 21st to the 25th, inclusive.

MISCELLANEOUS PHENOMENA.

Auroras were observed in the upper portion of the drainage area on the 2d, 21st–24th, 26th, and 27th. On the night of the 14th at about 9 p. m. a brilliant meteor was observed at several stations in southeastern South Dakota. In the lower portion of the drainage area thunderstorms were rather more frequent than is usual in February.

CORRECTION TO DECEMBER, 1910.

The 2 illustrations hereunder were inadvertently omitted from the paper, "Are the Springs Colder Now?" by George Reeder, Section Director, Weather Bureau, District No. 6, December, 1910.

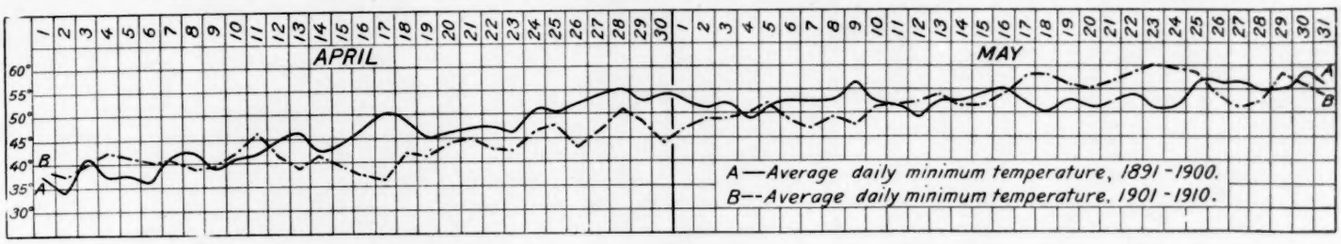

FIG. 1.

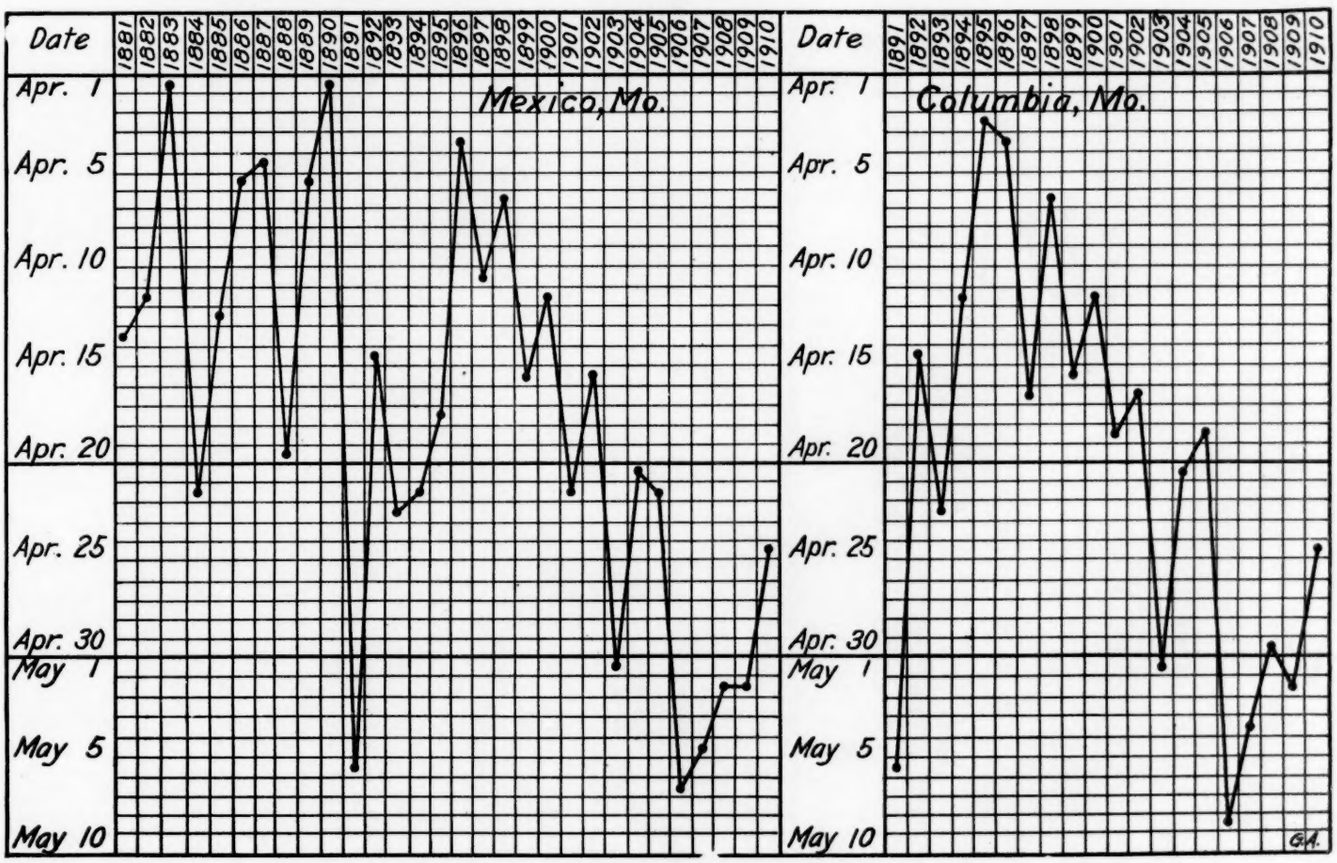

FIG. 2.—Last date on which freezing temperature occurred.

TABLE 1.—*Climatological data for February, 1911. District No. 6, Missouri Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Arapahoe	Fremont		2																	A. E. Deitz.
Barnum	Johnson	5,500	6								0.27	− 0.15	0.10	5.0	3	18	6	4	nw.	Thos. Freeguard.
Basin	Bighorn	3,862	12	24.8	+ 4.9	56	12	− 7	22	44	T.	− 0.37	T.	T.	0	17	5	6	s.	O. J. Robertson.
Bennett	Carbon		2								0.95		0.34		6	15	10	3	w.	Chas. C. Young.
Big Creek	....do	7,500									0.64		0.18	15.5	5	8	9	11	sw.	U. S. Forest Service.
Casper	Natrona	5,101	2	23.3		57	12	− 11	22	44	1.40		0.80	14.0	3	20	2	6	sw.	M. C. Cook.
Centennial	Albany	8,074	8	19.2		42	11	− 12	21	33	1.81		0.60	17.6	14	9	4	15	w.	Louis A. Gregory.
Cheyenne	Laramie	6,088	40	24.8	− 1.5	56	11	− 13	21	37	0.56	0.00	0.22	5.6	10	12	9	7	w.	U. S. Weather Bureau.
Chugwater	....do	5,282	10	25.9	− 1.6	56	1	− 13	22	39	0.60	− 0.15	0.30	6.0	3				w.	A. H. Woolever.
Clark	Bighorn	4,320	5	26.6		51	11	− 1	28	34	0.16		0.05	1.5	4	13	10	5	w.	Chas. A. C. Snow.
Cody	....do	5,000	4	29.0		54	11†	− 4	28	44	T.		T.	T.	0	8	11	9	w.	C. W. Dibble.
Crazy Creek	....do	6,828	....	8.8		39	1	− 40	28	71	0.25		0.13	5.0	4	16	4	8	nw.	Jas. Smith.
Dome Lake	Sheridan	8,821	3	15.1		40	24	− 5	24†	45	0.95		0.20	9.5	7	17	2	9	sw.	Abe Mills.
Douglas	Converse	4,793	2	20.0		55	11	− 22	20	44	0.45		0.28	5.8	5					Henry C. Miller.
Dubois	Fremont	6,909	4	18.9		41	10†	− 26	28	59	0.80		0.30	8.0	6	11	15	2	nw.	Dr. F. H. Welty.
Eatons Ranch	Sheridan	4,600	6	24.6		55	11	− 7	28	49	2.10		1.20	21.0	5	23	4	1	nw.	F. A. Eaton.
Echeta	Crook	4,200	2								0.20		0.20	3.0	1	17	6	5	s.	M. R. Hunter.
Elk Mountain	Carbon		6								2.14		0.78	43.0	8					Wm. Richardson.
Encampment	....do	7,322	2	19.8		48	10	− 5	18†	42	0.99		0.40		8				sw.	U. S. Forest Service.
Ervay	Natrona	6,400	2	21.0		52	5	− 20	22	40	0.79		0.40	15.0	6	13	7	8	sw.	Frank Jameson.
Fort Laramie	Laramie	4,270	33	27.2	0.0	64	11	− 7	22	44	0.66	+ 0.15	0.26	16.0	4	13	12	3	w.	John Hunton.
Gillette	Crook	4,546	5	23.3		50	1	− 1	21	47	0.40		0.18	4.0	3	16	6	6		S. D. Perry.
Hunters Station	Johnson	8,000	5	19.8		43	1	− 8	21†	41	0.57		0.28	9.0	4	16	6	6	w.	U. S. Forest Service.
Hyattville	Bighorn	4,632	12	26.6	+ 1.5	52	11	− 4	28	40						17	0	11		Wm. Booth.
Jireh	Converse	5,050	1								0.20		0.20	16.0					n.	P. L. Ford.
Kirtley	....do		7	24.0	0.0	56	11	− 15	21	39	0.19	− 0.12	0.16	4.0	2	15	8	5	w.	D. M. Zum Brunnen.
Knowles	Crook	4,500	2								0.25		0.13	5.9	5					Geo. A. Knowles.
La Grange	Laramie	4,510	1								0.16		0.04	1.8	5	17	8	3	w.	Owen Shupp.
Lander	Fremont	5,372	19	18.5	− 3.3	50	11	− 16	23	40	2.32	+ 1.67	0.81	27.5	8	14	7	7	sw.	U. S. Weather Bureau.
Laramie	Albany	7,188	20	22.5	+ 0.8	45	11†	− 3	23	41	0.15	− 0.12	0.10	1.5	2	21	3	4	sw.	University of Wyoming.
Leo	....do	6,878	10					− 5	22											C. A. Cowdin.
Lolabama Ranch	Bighorn	7,052	7	17.8	− 1.8	39	11	− 22	28	49	0.25	− 0.14	0.15	1.5	2	18	5	5	w.	Mary E. Painter.
Lovell	....do	3,825	6	23.8	− 0.2	55	11	− 7	22†	46	T.		T.	T.	0	18	5	5	n.	R. Fred Harrison.
Manville	Converse	5,050	1								0.70		0.20	7.0	5	19	5	4	sw.	C. A. Sherman.
Moore	Albany	6,000	10	24.0	− 3.6	60	1	− 18	21	39	0.72	+ 0.20	0.13	8.0	11	11	7	10	w.	Edwin Moore.
Newcastle	Weston	4,319	4	24.0		54	2	− 4	21	39	0.70		0.40	7.0	4	13	10	5	n.	Dr. S. W. Johnson.
Pathfinder	Natrona	5,735	5	22.9	− 1.9	48	1	− 4	17†	30	0.32	− 0.11	0.11	8.0	4	21	0	7	sw.	U. S. Reclamation Service.
Phillips	Laramie	4,900	8					− 3	21†	41										Mrs. Arthur Rugg.
Powell	Bighorn	4,376	4	23.8		53	11	− 7	28	43	0.00		0.00	0	0	21	5	2	w.	U. S. Reclamation Service.
Rawlins	Carbon	6,748	9	18.2	− 4.7	42	1	− 14	27	39	2.10	+ 1.27	0.52	25.2	11	18	4	6	w.	E. J. Ehrenfeld.
Saratoga	....do	6,785	13	18.5	− 3.1	43	11	− 18	18	43	0.50	− 0.44	0.17	12.5	7	12	9	7	sw.	G. Frederick Clark.
Sheridan	Sheridan	3,790	16	20.4	− 0.5	52	11	− 20	28	47	0.40	− 0.32	0.23	5.5	6	11	9	8	nw.	U. S. Weather Bureau.
Shoshone Dam	Bighorn	5,385	5	27.2		54	24	− 2	28	38	T.		T.	0.5	0	19	7	2	w.	U. S. Reclamation Service.
Soldiers Home	Johnson	4,635	19	25.2	+ 1.3	53	11	− 6	28	34	1.10	+ 0.54	0.40	11.0	6	9	19	0	nw.	Geo. L. Courthey.
South Pass City	Fremont	7,873	9	11.0		38	11	− 27	17	53	2.19		0.70	24.1	12	15	6	7	sw.	John Sherlock.
Thermopolis	....do	4,350	7	25.4	+ 2.5	55	11	− 20	28	48	0.45		0.19	5.0	5	20	4	4	sw.	A. L. Duhig.
Upton	Weston		2																	G. E. McPherren.
Valley	Bighorn	6,500	2								0.13		0.09	4.5	3	12	14	2	w.	Jas. L. McLaughlin.
Verona	Sheridan	4,360	2								0.60		0.40	6.0	3	6	18	4	nw.	O. A. Roode.
Wiants Ranch	Carbon	7,400	1								0.96		0.32	13.0	8	11	12	5	sw.	Ira G. Wiant.
Woodrock	Sheridan										1.33		0.30	10.0	7	14	4	10	sw.	U. S. Forest Service.
Worland	Bighorn			24.0		56	11	− 10	28	45	0.15		0.12	1.8	2	17	5	6	sw.	Harry S. Smith.
Wyncote	Laramie	4,207	4	28.4		63	11	− 6	21†	46	0.12		0.12	3.0	1	20	3	5	nw.	U. S. Reclamation Service.
Yellowstone Park	Yellowstone Park.	6,200	23	14.6	− 5.0	36	11	− 13	27	39	1.09	− 0.75	0.32	11.4	7	11	5	12	s.	U. S. Weather Bureau.
Fountain	....do	7,220	5	11.6		41	4	− 22	22	52	0.91		0.31	7.0	4	24	1	3	se.	U. S. Army.
Gallatin	....do										0.85		0.48	8.5	3	20	0	8	n.	Do.
Grand Canyon	....do	7,900	4	5.0		33	1	− 36	28	60	1.12		0.29	15.5	8	17	5	6	w.	Do.
Lake Yellowstone	....do	7,733	7	5.5		28	5	− 32	28	52	0.96		0.29	10.5	6	19	0	9	s.	Do.
Norris	....do	7,525	7	10.0		42	9	− 38	28	73	0.60		0.30	11.0	2	14	7	7	w.	Do.
Riverside	....do	6,500	5	11.6		37	11	− 30	9†	61	1.90		1.50	19.0	3	23	0	5	s.	Do.
Soda Butte	....do	7,000	6	11.0		39	1	− 24	22	45	0.50		0.30	4.0	3	16	11	1	sw.	Do.
Sylvan Pass	....do	7,000	4	13.8		37	28	− 25	17	59	T.		T.	T.	0	19	2	7	w.	Do.
Thumb	....do	7,772	5	8.6		40	4	− 25	17	50	1.51		0.60	20.0	5	22	1	5	sw.	Do.
Tower Falls	....do	6,250	2	15.8		45	1	− 24	23	58	1.00		0.06	1.0	3	24	0	4	nw.	Do.
Upper Geyser Basin	....do	7,395	7	3.6		37	26	− 34	24	58	0.84		0.60	12.0	4	22	2	4	sw.	Do.
Montana.																				
Adams	Dawson		3	11.7		35	24	− 19	3	42	1.27		0.60	12.7	3	21	2	5	nw.	W. B. Ennis.
Adel	Cascade	5,200	13	20.5	− 0.9	47	4†	− 19	2	50	3.25	+ 2.19	1.80	31.5	8	19	3	6	w.	Mrs. B. F. Burch.
Agricultural College	Gallatin	4,700	14	17.4	− 4.7	47	11	− 10	28	33	0.33	− 0.34	0.15		4	12	9	7	se.	Prof. E. Burke.
Augusta	Lewis and Clark	4,071	13	17.6	− 5.1	48	11	− 23	1	57	0.70	+ 0.25	0.20	7.0	5	13	9	6	w.	C. C. Covington.
Babb	Teton	4,461	5	18.6		43	11	− 22	2	56	1.87		0.65	33.8	7	13	12	3	sw.	U. S. Reclamation Service.
Bald Butte	Lewis and Clark	6,500	2								0.79		0.22	13.7	9	11	10	7		M. W. Alderson.
Bigtimber	Sweet Grass	4,072	5	23.3		52	15	− 16	28	41	1.64		0.90	11.0	4	18	4	6	w.	F. A. Severance.
Bigtimber Creek	....do		2								0.62		0.26	9.5	4	12	13	3	w.	J. T. Mjolsness.
Billings §§	Yellowstone	3,115	16	17.9	− 7.3	45	10	− 9	23	45	0.08	− 0.38	0.04		3				w.	U. S. Weather Bureau.
Boulder Nursery	Jefferson	4,920	17																	U. S. Forest Service.
Bowen	Beaverhead	6,060	5	1.6		33	1	− 37	28	43	0.29		0.10	4.6	6	18	3	7		B. B. Lawrence.
Bridger	Carbon	3,664	3	23.1		54	11	− 11	28	49	0.01		0.01	0.5	1	11	8	9	n.	L. E. Gard.
Broadview	Yellowstone		5	13.9[g]		41[m]	24	− 16	22†	40[m]	0.20		0.20	2.0	1	18	9	1	w.	Miss Mabel Sudduth.
Busby	Rosebud		8	16.4		44	11†	− 16	21	49	0.06		0.03	0.9	3	14	11	3	ne.	Rev. G. A. Linscheid.
Busteed	Sweet Grass		4	19.5		47	10	− 18	28	47	0.36		0.15	8.4	5	16	5	7	w.	Thos. H. Busteed.
Cabin Creek	Beaverhead		2								0.29		0.14	6.6	3	21	0	7	nw.	W. J. Crowell.
Canyon Ferry	Lewis and Clark	3,644	13	17.8	− 3.7	44	11	− 13	28	29	0.08	− 0.39	0.04	2.0	3	15	11	2	nw.	A. C. Pratt.
Cascade	Cascade	3,361	7	21.2		54	11	− 33	28	55	1.08		0.70	20.1	7	19	6	3	sw.	Dr. E. E. James.
Chessman Reservoir	Lewis and Clark	5,275	3	14.2		40	11	− 24	28	43	1.24		0.55	29.2	11	20	3	5	sw.	Chas. D. Schmidt.
Chester	Chouteau	3,140	7	4.5		31	11	− 30	28	48	T.		T.	T.	0	24	3	1	ne.	E. D. Heath.
Chinook	....do	2,502	13	5.2[f]	− 9.7	33	13	− 32	28	48[f]	0.39	+ 0.04	0.27	3.9	3	15[f]	6[f]	1[f]	w.	T. O'Hanlon Co.
Chouteau §§	Teton	3,810	7	19.1		49[n]	11	− 17	27	47[n]										A. B. Guthrie.
Clearcreek	Chouteau		6	17.9		50	11	− 25	2	49	1.45		0.80	14.5	3	21	5	2	sw.	Cortez Sedgewick.
Clemons	Lewis and Clark	4,672	2								0.63		0.28	13.7	6	9	15	4	w.	Frank Eberl.
Clydepark	Park		1								0.29		0.08	8.0	6	17	5	6	n.	Dr. T. B. Marquis.
Copper	Meagher		6								0.47		0.16	7.0	8	17	5	6	nw.	O. Harris.
Crow Agency	Rosebud	3,041	30	16.4	− 3.3	42	5	− 17	28	42	0.45	− 0.14	0.25	4.5	4	18	5	5	nw.	F. E. Server.
Culbertson	Valley	1,927	8	4.2	− 3.9	36	14	− 26	19†	40	1.00	+ 0.60	0.80	10.5	2	17	11	0	nw.	J. H. Coulter.
Cut Bank	Teton	3,700	12	12.2	− 5.0	39	9	− 25	28	44	0.44	− 0.29	0.20	8.0	3	21	4	3	w.	C. N. Thomas.
Decker	Rosebud	3,400	7																	Adam Anderson.
Denton	Fergus		3	17.8		44	11	− 19	2	44	0.41		0.15	5.0	6	15	8	5	se.	P. J. Greisenauer.

TABLE 1.—*Climatological data for February, 1911. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana—Continued.																				
Dillon	Beaverhead	5,147	14	27.2	+ 0.6	44	4†	− 11	28	42	1.23	+ 0.50	0.50	10.7	10	16	7	5	sw.	Prof. J. E. Monroe.
Dirty Creek	Meagher	6,000	2								0.72		0.53	12.0	4	20	2	6	w.	Lewis Cameron.
Dry Creek	Broadwater	5,500	2								1.47		0.30	14.7	9	9	13	6	sw.	J. C. Stuart.
Dry Wolf Camp	Cascade	6,000	2								0.57		0.41	11.7	6	20	4	4	sw.	Mrs. R. J. Eveleth.
East Gallatin River	Gallatin	6,000	3								0.81		0.29	18.5	8	17	5	6	w.	John Eberhart.
Ekalaka	Custer		11	25.8	+ 7.8	52	12	− 5	20†	32	T.	− 0.52	T.		0	18	5	5	nw.	Wm. Freese.
Elkhorn	Jefferson	6,576	3								0.26		0.07	7.0	4	14	9	5	w.	Jas. Heagan.
Evans	Cascade	4,900	4	21.8		48	11	− 18	2†	48	1.70		1.20	17.0	4	17	7	4	n.	H. Thrasher.
Fallon	Custer	2,208	7	7.2		39	14	− 24	21	49	0.05		0.05	0.5	1	22	5	1	nw.	Mrs. A. C. Gifford.
Fish Creek §	Silver Bow	8,500	2	15.0		36	9	− 14	28	44	1.86		0.75	29.7	7					O. B. Tilton.
Flathead Creek	Gallatin	6,000	2	18.7		67	12	− 17	28	48	1.08		0.31	8.1	9	13	9	6	nw.	Alta Williams.
Forsyth	Rosebud	2,514	6	12.2		44	12	− 19	19	54	T.		T.	T.	0	18[a]	3[a]	6[a]	e.	W. F. Clark.
Fort Benton	Chouteau	2,630	32	15.1	− 6.9	42	12†	− 32	27	48	1.00	+ 0.54	0.40	10.0	4	16	10	2	n.	Jere Sullivan.
Fort Shaw	Cascade	3,500	23	19.5	− 5.1	50	11	− 21	28	52	0.52	+ 0.02	0.20	9.2	4	14	7	7	sw.	U. S. Reclamation Service.
Fort Harrison §§	Lewis and Clark	4,004	8	17.8		37	11	− 7	27†	37						16	1	11	w.	Post Hospital.
Foster	Yellowstone		2	15.2		43	5	− 22	28	47	0.08		0.05	0.8	2	18	5	5	nw.	E. K. Bowman.
Garneill	Fergus	5,500	3																	T. E. Scally.
Glasgow	Valley	2,092	15	5.4	− 4.0	35	12	− 23	21†	46[d]	0.60	+ 0.09	0.56	6.4	2					W. A. Mabee.
Glendive	Dawson	2,069	21	11.7[f]	− 1.0	39	12	− 17	21	39[f]										E. C. Leonard.
Goldbutte	Chouteau		4	14.8		42	10	− 20	2	47	0.30		0.10	9.0	7	10	13	5	w.	J. Berthelote
Graham	Custer		6	24.3		54	11†	− 12	28	45	0.06		0.03	1.6	3	12	10	6	sw.	J. S. Rue.
Grayling	Gallatin	6,700	6	7.9		35	11	− 40	28	62	0.60		0.23	9.0	3	11	11	6	n.	P. Kerzenmacher.
Great Falls	Cascade	3,350	20	20.8	− 4.2	51	11	− 15	28	56	1.04	+ 0.49	0.54	12.0	6	11	13	4	ne.	S. H. Bauman.
Half Moon Pass	Fergus	6,500	2								0.60		0.40	7.0	6	4	22	2	w.	Thos. Stigen.
Half Way House	Broadwater	6,000	2								2.38		0.64	28.2	9	11	10	7	sw.	Gordon Deans.
Harlowton	Meagher	4,165	4	19.0		55	11	− 14	28	45	0.45		0.15	4.5	4	6	11	11	w.	Joseph Muir.
Havre	Chouteau	2,505	32	5.4	− 9.6	37	13	− 27	28	47	0.60	+ 0.13	0.40	8.5	5	18	7	3	ne.	U. S. Weather Bureau.
Helena	Lewis and Clark	4,110	32	18.2	− 4.0	45	11	− 6	28	29	0.22	− 0.52	0.07	4.7	6	14	7	7	w.	Do.
Highwood	Chouteau		5								1.00		0.60	18.7	5	17	4	7	sw.	W. S. McCord.
Huntley	Yellowstone	3,014	5	17.6		46	10	− 13	28	46	0.50		0.29	3.2	3	15	10	3	e.	U. S. Reclamation Service.
Jones Canyon	Gallatin	6,800	2								2.14		0.71	28.5	9	21	0	7	w.	Jas. McCune.
Jordan	Dawson		6	8.2		40	13†	− 25	28	52	0.40		0.40	4.0	1	26	0	2	nw.	W. C. Henderson
Lewistown	Fergus	4,010	15	19.6	− 3.4	53	11	− 20	2	44	0.46	− 0.44	0.18	11.0	4	16	9	3	nw.	W. W. Watson.
Livingston	Park	4,488	15	25.3	− 2.3	50	11	− 7	28	38	0.10	− 0.41	0.05	1.0	2	18	4	6	w.	W. A. Jennings.
Lonetree	Chouteau	3,280	6	18.9		49	10†	− 18	3†	56	1.34		0.61	14.0	4	21	5	2	w.	E. Wilson.
Lost Horse Creek	Meagher	5,800	2								1.07		0.42	12.5	7	13	9	6	w.	C. M. Mason.
Malta	Valley	2,240	5	2.4		35	12	− 29	28	51	0.56		0.50	6.5	2	23	3	2	w.	U. S. Reclamation Service.
Medicine Lake	do		1	0.4[d]		30	12†	− 27[h]	21†	37[h]	1.70		1.20	17.5	3	20	7	1	sw.	J. S. Collier.
Melstone	Fergus	2,903	2								0.48		0.28	7.0	2					F. J. Parkinson.
Mildred	Custer		2								0.02		0.01	2.0	2	26	1	1	nw.	Leon B. Clark.
Miles City	do	2,371	20	11.9	− 4.9	38	12	− 11	3	40	0.14	− 0.42	0.12	1.0	2	14	12	2	ne.	U. S. Weather Bureau.
Norris	Madison	4,845	5	25.0		46	11	− 5	28	33	0.56		0.21	20.6	5	17	7	4	s.	Madison River Power Co.
Nye	Sweetgrass		3	18.3		44	4†	− 29	28	63	1.05		0.43	18.4	7	19	2	7	sw.	F. L. Bryant.
Olsen Creek	Jefferson	6,345	3								0.47		0.12	11.0	7	12	9	7	w.	Robert Olsen.
Pipestone Pass	do	7,000	3								0.63		0.21	13.5	8	15	10	3	e.	Mrs. T. Kiermeyer.
Poplar	Valley	2,020	26	4.6	− 2.7	34	12	− 26	21	45	0.35	− 0.20	0.19	5.1	2	26	1	1	w.	H. M. Cosier.
Raymond	Teton	4,260	4	17.6		50	6†	− 23	1	55	0.20		0.15	2.0	3	19	4	5	w.	W. H. Campbell.
Red Lodge	Carbon	5,548	12	18.8	− 2.4	48	11	− 17	28	39	1.22	+ 0.28	0.48	16.0	6	13	6	9	se.	I. A. Draper.
Renova	Jefferson	4,383	13	23.4	− 1.6	49	11	− 11	28	37	0.33	− 0.06	0.21	3.4	4	12	11	5	sw.	F. B. Elmer.
Ryegate	Yellowstone	3,640	2	25.0		50	10	− 9	28	46	0.50		0.50	5.0	1	18	0	10	w.	H. Scherfenberg.
Seville §	Teton	3,980	3	11.9		41	11	− 20	2†	43	0.47		0.16	12.8	5	17	8	3	w.	U. S. Reclamation Service.
Sidney	Dawson		1	12.2		35	14	− 22	20	42	0.60		0.30	8.5	3	18	4	6	w.	Fred W. Arndt.
Spokane Ranch	Lewis and Clark										0.22		0.11	1.9	3					O. E. Penwell.
Springbrook	Dawson		10	11.6	− 2.9	41	11	− 18	21	49	1.90	+ 0.66	1.00	19.0	4	10	16	2	sw.	Mrs. H. L. Miller.
Stearns	Lewis and Clark	4,500	2								0.81		0.46	21.0	3	11	2	15		J. W. Hardgrove.
Threeforks	Gallatin	4,066	1	23.1[b]		61	14	− 11	28	51[b]	0.23		0.12		3	16[e]	6[e]	1[e]		A. A. Adams.
Tokna §	Dawson	2,020	6	11.0		40	14	− 17	20	48	0.80		0.48	8.0	3	17	5	6	w.	U. S. Reclamation Service.
Trail Creek	Park	6,000	3								0.96		0.20	20.5	12	17	3	8	w.	A. Weidenbauer.
Utica	Fergus	5,000	17	21.2	− 2.4	50	11	− 18	2	44	0.51	+ 0.16	0.30	9.0	4	21	6	1	w.	P. W. Korell.
Valentine	do		5	8.6		38	11†	− 27	28	52	0.19		0.17		2	22	2	4	w.	B. M. Bean.
Virginia City	Madison	5,880	23	18.7	− 4.4	43	11	− 8	28	26	0.50	− 0.05	0.18	5.0	4	14	7	7	w.	M. Mailand.
Wall Rock Mountain	Broadwater	5,600	2								0.33		0.11	9.9	5	15	10	3	nw.	D. L. Doig.
Warm Springs Creek	Madison	7,500	2								0.57		0.29	7.9	10	10	5	13	sw.	M. D. Lytle.
Wolf Creek	Lewis and Clark	4,000	8	23.3		48	11	− 20	28	47	2.02		0.90		6	17	5	6	s.	A. J. Reed.
Woodville	Jefferson	6,376	2								0.42		0.16	6.9	7	12	15	1	sw.	Anna Kinman.
North Dakota.																				
Aplin	Oliver		5	6.8		51	26	− 22	2	65[i]	0.30		0.30	3.0	1				w.	J. B. Hagelbarger.
Beach	Billings	2,759	5	10.8		40	16	− 20	2	46	0.78		0.66	6.5	2	19	8	1	w.	D. J. Steiner.
Berthold Agency	McLean	2,082	15	5.8	− 3.4	38	24	− 24	2	54	0.57	0.00	0.50	2.6	2	16	9	3	nw.	C. L. Hall.
Bismarck	Burleigh	1,674	37	8.4	+ 0.1	39	24	− 16	19	38	0.42	− 0.08	0.20	8.7	4	12	11	5	nw.	U. S. Weather Bureau.
Broncho	Mercer		4	6.7		38	25	− 20	2†	42	0.90		0.60	9.0	3	1	23	4	nw.	E. M. Walker.
Buford	Williams	1,944	6	5.6		37	11	− 26	3	48	0.40		0.30	6.0	2	23	2	3	w.	J. A. Beisel.
Dickinson	Stark	2,453	19	9.8	− 1.9	45	24	− 22	2†	43	0.55	+ 0.07	0.50	5.5	2	16	6	6	nw.	L. R. Waldron.
Edgely	Lamoure	1,408	10	12.4	+ 2.8	40	24	− 15	5	29	0.35	− 0.05	0.17	3.5	5	6	17	5	nw.	O. A. Thompson.
Epping	Williams		4								0.49		0.35	5.0	3	18	5	5	n.	M. A. Uggen.
Fullerton	Dickey	1,439	13	12.0	+ 3.6	40	24	− 13	2†	35	0.81	+ 0.22	0.35	8.1	4	16	4	8	nw.	F. O. Allin.
Garrison	McLean		2	6.6		36	24	− 20	2†	35	0.65		0.60	6.5	2	9	11	8	nw.	G. L. Robinson.
Haley	Bowman		4	20.2		55	24	− 8	27	55	0.02		0.02	0.2	1	15	10	3	nw.	A. M. Oberchain.
Hettinger	Adams	2,253	5	18.2		53	12	− 8	2	46	0.01		0.01		1	22	5	1	nw.	W. R. Lanxon.
Howard	Williams	2,275	5	11.3		31	14	− 37	3	57	1.77		1.40	17.7	3	16	9	3	nw.	C. P. Amsbaugh.
Jamestown	Stutsman	1,390	24	6.8	− 1.1	38	13†	− 17	27	37	0.80	+ 0.25	0.30	8.0	5	20	1	7	nw.	Thos. Pettigrew.
Lamoine	Kidder		4	5.5		31	14	− 19	3†	31	1.10		0.40	11.0	3	19	5	4	nw.	E. V. Virgin.
McHenry	Foster	1,509	2	3.2		38	15	− 25	2	38	0.73		0.50	7.4	5	13	10	5	w.	John Knox.
Manfred	Wells	1,605	10	4.0		30	24†	− 22	20	36	1.10		0.50	11.0	3	14	10	4	sw.	P. B. Anderson.
Marmarth	Billings		4								0.12		0.10	4.0	2	19	7	2	nw.	S. P. Grane.
Marstonmoor	Stutsman		4																	H. H. McCumber.
Medora	Billings	2,225	15	12.2	− 1.3	48	10†	− 20	2†	56	0.54	+ 0.05	0.48	5.4	2	12	14	2	ne.	J. W. Hesser.
Melville	Foster	1,509	14	6.8	+ 0.5	33	24	− 20	5	36	2.70		1.00	27.0	3	13	11	4	nw.	J. P. Kidder.
Mott	Hettinger		5	14.1		52	24	− 17	1	45	0.30		0.20	3.0	2	12	9	7	nw.	O. H. Opland.
Napoleon	Logan	1,955	20																	C. J. Hoof.
New England	Hettinger	2,400	16	14.6	+ 2.8	45	12†	− 18	5	55	0.40	− 0.34	0.30	4.0	2				nw.	J. L. McGovern.
New Rockford	Eddy	1,531	2																	J. V. M. Sundberg.
New Salem	Morton	2,163	5	9.8		34	24	− 21	2	40	0.66		0.60	6.6	3	19	6	3	nw.	J. Christianson.
Orange	Adams		5	17.2		55	12	− 10	2	43	0.35		0.30	3.5	2	20	5	3	nw.	J. E. Goforth.
Schafer	McKenzie		3																	V. G. Morris.
Steele	Kidder	1,857	16								0.90	+ 0.39	0.40	9.0	4	17	7	4	nw.	B. C. Smith.
Washburn	McLean	1,731	8	9.2		38	24	− 18	2	37	0.40		0.40	4.0	1	19	8	1	w.	W. R. Peterson.
Williston	Williams	1,875	32	5.2	− 2.7	34	24	− 23	2	40	0.34	− 0.13	0.18	4.8	4	12	11	5	n.	U. S. Weather Bureau.

TABLE 1.—*Climatological data for February, 1911. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
South Dakota.																				
Aberdeen	Brown	1,300	21	13.2	+ 2.3	42	24	−13	21	41	1.37	+ 0.43	1.00	13.5	3	18	4	6	ne.	D. G. Gallett.
Academy	Charles Mix		12	21.8	+ 3.1	50	12	− 7	21	39	0.80	+ 0.28	0.50	8.0	3	14	7	7	nw.	I. T. Lothrop.
Alexandria	Hanson	1,352	22	19.2	+ 3.7	54	1	−13	21	44	0.40	− 0.22	0.30	4.0	2	23	3	2	nw.	Albert Hill.
Ardmore	Fall River	3,557	2	.....	.....	.....	.....	.....	.....	.....	0.40	.....	0.30	4.0	2	16	8	4	w.	Chi., Burl. & Quincy R. R.
Armour	Douglas	1,521	15	19.6[f]	+ 1.6	42	1	−12	21	34[f]	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. J. Markey.
Bellefourche	Butte	3,000	3	25.3	.....	60	11	− 4	21	49	0.05	.....	0.05	0.5	1	7	14	7	nw.	U. S. Reclamation Service.
Brookings	Brookings	1,636	22	18.8	+ 5.1	42	24†	− 9	21	39	0.53	+ 0.01	0.45	3.5	2	14	8	6	nw.	Experiment Station.
Camp Crook	Harding	3,000	19	21.0	+ 1.9	50	11†	− 8	21	46	0.07	− 0.37	0.05	0.7	2	14	9	5	nw.	U. S. Forest Service.
Canton	Lincoln	1,248	16	23.2	+ 5.3	54	1	−12	10	45	0.72	+ 0.22	0.41	10.0	2	20	4	4	nw.	John H. Holsey.
Cascade Springs	Fall River	3,422	3	27.7	.....	63	11	− 5	21	46	0.35	.....	0.13	3.0	3	17	2	9	nw.	Fred Noerenberg.
Castlewood	Hamlin	1,685	5	17.6	.....	43	25	−11	21	33	0.11	.....	0.04	1.5	4	14	3	11	nw.	M. N. Bradley.
Centerville	Turner	1,229	14	21.8	.....	47	24†	−13	10	48	1.27	+ 0.43	0.90	9.3	3	3	9	16	nw.	Frank Williams.
Chamberlain	Brule	1,383	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Bingham
Clark	Clark	1,779	17	16.6	+ 4.3	40	25	−11	2	36	0.75	+ 0.22	0.25	6.0	4	16	8	4	nw.	O. H. La Craft.
Cottonwood	Stanley	2,414	3	25.0	.....	63	12	− 5	21	52	0.60	.....	0.40	6.0	2	11	15	2	nw.	Experiment Station.
Crow Creek	Buffalo	1,385	1	.....	.....	.....	.....	.....	.....	.....	0.96	.....	0.48	10.7	2	14	4	10	nw.	William Fuller.
Daviston	Perkins		2	17.9[d]	.....	59[e]	12	−12[d]	28	53[e]	0.45	.....	0.30	4.5	2	.....	.....	.....	nw.	G. G. Davis.
Deadwood	Lawrence	4,535	2	24.6	.....	55	1†	− 8	21	45	1.85	.....	0.85	18.0	4	17	8	3	.....	R. E. Grimshaw.
Deerfield	Pennington	6,000	2	.....	.....	.....	.....	.....	.....	.....	0.60	.....	0.19	9.7	7	14	6	8	nw.	Frank E. Miller.
De Smet	Kingsbury	1,726	18	18.2	+ 4.8	40	11†	−10	20†	37	0.70	+ 0.19	0.40	7.0	2	20	4	4	nw.	J. O. Puriatun.
Dowling	Stanley	2,250	2	24.9	.....	60	12	− 6	21	60	0.35	.....	0.20	2.6	3	10	12	6	nw.	M. P. Dowling.
Dumont	Lawrence	6,135	2	.....	.....	.....	.....	.....	.....	.....	3.20	.....	1.17	23.5	7	16	6	6	nw.	A. B. Wood.
Eales	Potter		1	.....	.....	.....	.....	.....	.....	.....	0.71	.....	0.38	7.4	4	15	10	3	nw.	A. H. Peterson.
Elk Mountain	Custer	4,700	2	.....	.....	.....	.....	.....	.....	.....	0.50	.....	0.20	3.5	4	16	2	10	nw.	James E. Blaine.
Elk Point	Union	1,126	12	24.8	+ 5.2	57	1	− 6	21	44	1.05	− 0.22	0.49	12.0	3	17	3	8	n.	G. W. Freeman.
Ellingson	Perkins			24.4	.....	53	24	− 6	1	29	.....	.....	.....	.....	.....	23	0	5	nw.	A. C. Ellingson.
Englewood	Lawrence	5,723	2	.....	.....	.....	.....	.....	.....	.....	3.30	.....	1.50	30.0	6	13	3	12	s.	T. J. Cummins.
Eureka	McPherson	1,884	2	14.6	.....	46	24	−15	20	42	0.73	.....	0.50	6.0	3	16	10	2	se.	Experiment Station.
Fairfax	Gregory		7	21.6	.....	50	1	− 8	21	39	0.70	.....	0.50	7.0	2	15	5	8	n.	D. Frank Adams.
Faulkton	Faulk	1,595	16	16.1	+ 2.9	42	24	− 9	2†	37	0.38	− 0.13	0.32	4.5	2	19	5	4	nw.	Miss Belle Talcott.
Flandreau	Moody	1,565	21	20.2	+ 6.2	46	1	−10	10	38	0.60	+ 0.02	0.40	6.0	3	12	10	6	n.	W. A. Harris.
Forestburg	Sanborn	1,231	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. S. Judy.
Fort Meade	Meade	3,624	29	27.0	+ 5.4	62	11†	0	3	50	0.45	− 0.19	0.20	7.5	3	9	13	6	w.	Post Hospital.
Frederick	Brown	1,371	3	10.0[d]	.....	40	28	−19	17	49[d]	0.50	.....	0.45	.....	3	17	3	8	ne.	J. E. Jeffers.
Gannvalley	Buffalo		13	19.7	+ 3.3	47	1	−10	21	38	0.90	+ 0.42	0.60	9.0	2	14	10	4	nw.	V. P. Drips.
Greenmont	Lawrence	6,430	2	.....	.....	.....	.....	.....	.....	.....	1.84	.....	0.75	30.5	6	12	12	4	w.	H. C. Hoffbuhr.
Greenwood	Charles Mix		17	23.2	+ 1.3	51	1	− 7	21	42	0.80	+ 0.24	0.60	8.0	2	13	12	3	nw.	T. C. Williamson.
Hardy Ranger Station	Lawrence	6,000	2	.....	.....	.....	.....	.....	.....	.....	0.86	.....	0.80	6.3	4	19	7	2	s.	Mrs. Ennie A. Gundlach.
Harveys Ranch	....do	6,282	1	.....	.....	.....	.....	.....	.....	.....	1.04	.....	0.44	16.0	6	17	4	7	w.	Jerome Harvey.
Hermosa	Custer	3,278	5	27.8[e]	.....	65	1	− 5	21	58[e]	0.38	.....	0.13	4.0	4	15	12	1	.....	S. M. Booth.
Highmore	Hyde	1,890	15	17.7	+ 3.2	51	12	−11	21	61	0.39	+ 0.14	0.29	3.5	3	17	8	3	nw.	Experiment Station.
Hill City	Pennington	5,067	2	.....	.....	.....	.....	.....	.....	.....	0.84	.....	0.32	8.5	3	12	10	6	nw.	H. L. Jones.
Hopewell	Stanley		1	22.0	.....	57	12	− 7	20	57	0.52	.....	0.25	5.0	3	13	12	3	w.	E. R. Myers.
Howard	Miner	1,564	19	17.2	+ 2.5	43	1	−18	21	41	0.30	− 0.20	0.20	5.0	2	18	6	4	nw.	J. J. Cox.
Howell	Hand		9	15.2	.....	45	24	−14	20	42	1.08	.....	0.51	7.4	4	17	5	6	nw.	M. A. Shuster, jr.
Huron	Beadle	1,306	29	15.2	+ 2.3	38	1	−11	21	40	0.74	+ 0.30	0.61	7.5	3	12	9	7	nw.	U. S. Weather Bureau.
Ipswich	Edmunds	1,530	14	13.4	+ 2.4	37	13	−11	2†	34	0.80	+ 0.25	0.50	8.0	2	21	3	4	nw.	J. B. Taylor.
Kadoka	Stanley	2,467	2	24.6	.....	59	12	− 5	21	51[a]	0.22	.....	0.10	2.2	4	16	8	4	nw.	Rev. D. S. Brown.
Kennebec	Lyman	1,689	18	22.6	+ 5.4	57	12†	− 6	6†	54[a]	0.50	+ 0.15	0.40	5.0	2	22	2	4	nw.	R. C. Van Horn.
Kidder	Marshall	1,295	7	13.4	.....	41	12†	−15	21	39	0.26	.....	0.11	2.5	3	24	1	3	sw.	H. C. Schussler.
Kimball	Brule	1,788	22	20.6[e]	+ 4.5	45	13	−11	21	30[e]	.....	.....	.....	.....	.....	.....	.....	.....	nw.	G. D. Rose.
La Delle	Spink	1,400	14	13.6[e]	+ 0.8	40	12†	−11	20	38[e]	.....	.....	.....	.....	.....	.....	.....	.....	nw.	E. L. Ebbert.
Lead§	Lawrence	5,200	2	25.2	.....	52	1	− 4	21	42	0.93	.....	0.33	24.0	7	12	14	2	nw.	E. F. Irwin.
Lemmon	Perkins	2,345	2	18.8	.....	55	12	− 9	2†	38	T.	.....	T.	T.	0	15	11	2	nw.	W. E. Lyman.
Marion	Turner	1,447	10	22.2	+ 4.0	60	1	−12	21	44	1.28	+ 0.49	1.02	10.5	3	11	12	5	nw.	M. H. Dains.
Marston	Sully		3	16.4	.....	47	13	−10	2	51	1.00	.....	0.80	8.0	3	12	11	5	nw.	John S. Walker.
Mellette	Spink	1,300	16	14.6	+ 1.8	38	24	−14	21	41	0.67	+ 0.25	0.53	6.7	3	20	4	4	nw.	Frank A. Howe.
Menno	Hutchinson	1,325	14	21.2	+ 3.8	52	1	−12	21	41	0.49	− 0.09	0.26	4.5	2	17	4	7	nw.	J. H. Swanton.
Milbank	Grant	1,148	20	16.7	+ 4.1	45	24	− 8	7	41	0.45	− 0.34	0.38	3.5	2	14	1	13	nw.	I. T. Patridge.
Mitchell	Davison	1,312	17	17.7	+ 0.8	42	24	−12	21	35	0.70	+ 0.14	0.60	15.0	2	16	12	0	nw.	C. W. Downey.
Mobridge	Walworth			17.0	.....	44	1†	− 9	21	40	0.30	.....	0.30	3.0	1	18	8	2	se.	F. J. Morris.
Murdo	Lyman	2,300	3	25.5	.....	57	12	− 5	21	56	0.75	.....	0.25	10.5	4	18	4	6	nw.	L. C. Bode.
Oelrichs	Fall River	3,339	19	26.8	+ 5.4	70	24	−11	21	58	0.40	− 0.59	0.20	4.0	3	10	17	1	sw.	J. E. Strouse.
Orman	Butte	2,920	5	26.1	.....	60	11†	− 3[a]	21	51[a]	0.02	.....	0.01	0.2	2	15	4	9	nw.	U. S. Reclamation Service.
Ottumwa	Stanley		3	21.2[e]	.....	55	12†	−10	7	58[e]	0.70	.....	0.40	7.0	2	10	14	4	nw.	J. W. Bretz.
Pierre	Hughes	1,572	19	21.2	+ 4.3	58	12	− 3	21	51	0.55	+ 0.11	0.36	6.4	3	12	14	2	nw.	U. S. Weather Bureau.
Plankinton§	Aurora	1,528	17	.....	.....	.....	.....	.....	.....	.....	0.85	+ 0.29	0.55	8.5	2	15	8	5	nw.	W. G. Andrews.
Pollock	Campbell		5	12.8	.....	42	13	−12	19	41[e]	0.39	.....	0.25	3.9	4	15	12	1	nw.	J. H. Jones.
Rapid City	Pennington	3,251	23	25.8	+ 2.3	60	11	0	21	51	0.43	− 0.03	0.28	4.5	6	9	8	11	w.	U. S. Weather Bureau.
Redfield	Spink	1,295	13	14.2	+ 1.9	40	24	−12	21	42	0.72	+ 0.30	0.70	10.9	3	19	1	8	sw.	A. S. Hall.
Rochford	Pennington	5,228	1	.....	.....	.....	.....	.....	.....	.....	0.42	.....	0.18	6.4	4	15	8	5	nw.	Mrs. M. E. Deffenbaugh.
Rosebud	Todd	2,600	17	26.6	+ 5.0	62	13	− 5	27	55[a]	0.45	− 0.18	0.20	4.5	3	16	8	4	sw.	W. M. Ege.
Rosebud Agency	....do	2,600		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Soldier.
Roslyn	Day		5	15.0	.....	41	12	−13	2	39	0.25	.....	0.20	2.6	4	16	7	4	nw.	O. O. Floren.
Savoy	Lawrence	4,500	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. E. Hibbard.
Selby	Walworth		3	15.6[e]	.....	41	12†	−11	21	44[f]	0.62	.....	0.50	7.0	2	18	4	6	nw.	Miss Gertrude Hall.
Sioux Falls	Minnehaha	1,400	20	22.4	+ 6.6	47	14	2	20	38	1.22	+ 0.57	1.10	9.0	2	11	9	8	nw.	J. H. Bechtold.
Spearfish	Lawrence	3,647	21	28.7	+ 6.0	58	11†	− 2	21	49	0.28	− 0.67	0.15	7.0	2	11	10	7	w.	O. A. Martin.
Stephan	Hyde	1,840	7	17.2	.....	47	13	−11	21	47	0.59	.....	0.50	6.0	3	11	11	6	nw.	Rev. A. Mattingly.
Tama	Meade		2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. J. Daly.
Timber Lake	Dewey	2,163		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. C. Milliken.
Tyndall	Bonhomme	1,418	14	22.0	+ 2.9	47	1	− 8	21	32	0.91	+ 0.45	0.65	8.8	2	22	3	3	nw.	F. F. Chladek.
Vale	Butte	2,765	3	24.6	.....	61	12	− 5	21	54	0.23	.....	0.14	2.3	3	11	13	4	nw.	U. S. Reclamation Service.
Vermilion	Clay	1,222	10	25.0	+ 4.4	53	1	− 6	21	40	1.30	+ 0.42	0.84	8.0	3	17	6	5	nw.	Prof. E. C. Perisho.
Waters Ranch	Lawrence	4,000	1	.....	.....	.....	.....	.....	.....	.....	0.54	.....	0.23	9.5	6	16	6	6	ne.	George Waters.
Watertown	Codington	1,735	17	17.7	+ 5.0	44	25	−10	2	33	0.31	− 0.24	0.16	4.6	2	17	3	8	s.	R. Q. Wood.
Wentworth	Lake		18	19.4	+ 5.6	41	24†	− 9	21	40[a]	0.52	+ 0.02	0.31	5.2	2	20	4	4	nw.	R. C. Zimmerman.
Wessington Springs	Jerauld	1,410	11	18.7	+ 2.3	43	1†	− 6	21	38	0.93	+ 0.25	0.62	10.0	3	7	12	9	nw.	F. N. Dunham.
White Lake	Aurora	1,646	2	.....	.....	.....	.....	.....	.....	.....	0.45	.....	0.40	4.5	2	11	3	14	nw.	Mrs. G. A. Rogers.
Winner	Tripp	2,500		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Rawson.
Yankton	Yankton	1,234	37	22.2	+ 4.0	48	24	− 7	21	43	1.43	+ 0.85	1.02	10.6	2	6	17	5	nw.	U. S. Weather Bureau.
Minnesota.																				
Pipestone	Pipestone	1,710	11	16.3	+ 2.9	40	23	−12	21	37	0.75	+ 0.32	0.60	8.0	2	15	7	6	nw.	W. S. Campbell.
Colorado.																				
Akron	Washington	4,650	9	.....	.....	.....	.....	.....	.....	.....	0.35	.....	0.17	5.5	3	.....	.....	.....	.....	Ira M. Barnhouse.
Albion Lake	Boulder			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Fred R. Dungan.
Alma	Park	10,238	14	.....	.....	.....	.....	.....	.....	.....	1.81	+ 1.10	1.20	19.6	3	.....	.....	.....	s.	Anna B. Osborne.

TABLE 1.—*Climatological data for February, 1911. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado—Continued.																				
Arriba (near)	Lincoln	5,238	5	27.3	.....	65	11	− 9	21	45	1.53	.....	0.33	11.7	8	20	5	3	n.	C. A. Creel.
Auldhurst	Teller	8,500	1	.....	.....	.....	.....	.....	.....	.....	1.42	.....	0.61	16.2	7	13	9	6	s.	Mrs. Alice A. Auld.
Boulder	Boulder	5,347	15	30.8	− 1.4	67	11	− 1	22	39	1.56	+ 0.84	0.60	27.1	6	19	3	6	.....	O. H. Wangelin.
Burlington	Kit Carson	4,160	8	30.6	.....	69	12	− 5	22	46	0.46	.....	0.20	7.0	4	8	16	4	nw.	W. P. Davis.
Cassells	Park	8,445	1	.....	.....	.....	.....	.....	.....	.....	1.50	.....	0.97	18.9	10	14	6	8	w.	Harriet M. Cassell.
Castle Rock	Douglas	6,220	19	28.4	0	61	3†	−15	22	49	0.75	+ 0.03	0.30	11.0	4	12	8	8	s.	Raymond W. Maxwell.
Cheesman	Jefferson	6,890	8	29.0	.....	56	1	− 8	21†	46	1.26	.....	0.45	13.0	7	13	12	3	sw.	J. G. Thornburg.
Cheyenne Wells	Cheyenne	4,279	17	29.2	+ 0.1	70	12	− 5	20†	54	1.34	+ 0.97	0.50	10.5	6	16	4	8	n.	J. W. Adams.
Cope	Washington	.....	14	29.2	+ 0.7	73	11	− 7	21	58	1.13	+ 0.64	0.26	8.3	7	15	6	7	n.	A. A. Williams.
Corona	Grand	11,660	4	5.4	.....	26	11	−14	21†	26	3.26	.....	0.75	37.0	8	.....	.....	.....	w.	U. S. Weather Bureau.
Denver	Denver	5,272	39	30.0	− 1.1	63	11	− 2	22	39	0.68	+ 0.18	0.34	10.2	7	16	7	5	s.	Do.
Edgewater	Jefferson	5,450	3	29.4	.....	64	12	− 5	20	46	1.00	.....	0.59	10.0	6	16	0	12	.....	Dr. N. P. Levin.
Estes Park Hatchery	Larimer	8,000	2	.....	.....	.....	.....	.....	.....	.....	0.51	.....	0.26	10.0	6	1	8	19	w.	Gaylord H. Thomson.
Fort Collins	....do	4,985	29	26.5	− 0.1	62	11	− 9	23	44	1.52	+ 0.97	0.49	25.7	9	16	6	6	nw.	Colo. Agricultural College.
Fort Lupton	Weld	4,907	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. W. Benedict.
Fort Morgan	Morgan	4,319	13	28.8	+ 0.3	78	11	− 8	23	67	0.15	− 0.13	0.07	2.1	3	14	6	8	ne.	Della M. Scott.
Frances	Boulder	9,300	6	22.4	.....	49	12	− 7	20†	42	.....	.....	.....	.....	.....	8	15	5	w.	C. W. Barry.
Frys Ranch	Larimer	7,500	1	23.2	.....	48	11	− 8	20†	45	0.85	.....	0.30	10.0	9	13	7	8	w.	Norman W. Fry.
Georgetown	Clear Creek	8,550	9	.....	.....	.....	.....	.....	.....	.....	0.82	.....	0.35	11.9	6	8	14	6	.....	H. L. Corbett.
Greeley	Weld	4,649	20	29.8	+ 2.5	66	11	− 7	23	50	0.88	+ 0.45	0.24	12.5	6	19	4	5	w.	Nelson Reynolds.
Grover	....do	5,076	....	28.8	.....	60	11	− 4	21	46	0.34	.....	0.18	5.4	4	15	7	6	sw	George M. Blake.
Hartsel	Park	7,670	2	.....	.....	.....	.....	.....	.....	.....	0.60	.....	0.26	12.0	8	17	1	10	.....	Emily Kleinknecht.
Hawthorne	Boulder	6,000	2	.....	.....	.....	.....	.....	.....	.....	1.38	.....	0.65	26.0	8	17	5	6	.....	B. E. Chesebro.
Holyoke (near)	Phillips	3,745	15	.....	.....	.....	.....	.....	.....	.....	0.11	− 0.28	0.11	1.5	1	15	7	6	w.	A. C. Cauble.
Idaho Springs	Clear Creek	7,534	11	23.7	− 6.7	51	1†	− 9	20	41	0.65	+ 0.28	0.32	12.5	7	7	16	5	w.	J. J. Willis.
Keota	Weld	4,966	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. S. Griffin.
Laporte	Larimer	5,053	20	.....	.....	.....	.....	.....	.....	.....	2.13	+ 1.52	0.85	36.3	6	.....	.....	.....	.....	P. A. Taft.
Leroy (near)	Logan	4,380	22	.....	.....	.....	.....	.....	.....	.....	0.24	− 0.43	0.13	3.7	3	17	5	6	w.	Chas. Green.
Longmont §§	Boulder	4,980	10	25.9	+ 0.2	65	10	−12	22	48	0.71	.....	0.29	18.1	4	17	4	7	w.	Great Western Sugar Co.
Longs Peak (near)	Larimer	8,600	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Enos. A. Mills.
Lula Pass	....do	.....	...	.....	.....	.....	.....	.....	.....	.....	1.74	.....	0.47	23.5	7	8	10	10	.....	A. M. McCahan.
Moraine	....do	7,775	21	22.6	− 1.6	45	4†	−15	20	47	0.83	− 0.25	0.28	14.0	7	3	19	6	e.	J. D. Stead.
Platte Canon	Jefferson	5,492	12	.....	.....	.....	.....	.....	.....	.....	0.78	+ 0.25	0.52	15.2	5	.....	.....	.....	n.	Denver Union Water Co.
St. Cloud	Larimer	7,750	8	.....	.....	.....	.....	.....	.....	.....	1.59	.....	0.64	30.0	6	7	14	7	nw.	Miss Guilia Sivers.
Sedgwick	Sedgwick	3,573	3	28.6	.....	67	11	−12	21	56	0.10	.....	0.10	1.0	1	13	11	4	nw.	Edwin Lewis, M. D.
Sill Mine	Clear Creek	11,500	2	12.6	.....	47	3	−20	21	41	2.89	.....	0.65	36.9	11	17	1	10	w.	Chas. F. Deininger.
Spicer (near)	Larimer	8,700	1	.....	.....	.....	.....	.....	.....	.....	1.17	.....	0.37	15.5	6	11	7	10	sw.	Frank W. Murphy.
Sterling	Logan	3,892	2	28.4	.....	68	10	− 5	22	55	0.16	.....	0.14	1.7	3	21	2	5	se.	Great Western Sugar Co.
Waterdale	Larimer	5,206	8	28.6	.....	63	11	− 8	20	42	1.79	.....	0.50	22.0	8	.....	.....	.....	.....	P. H. Boothroyd.
Wray	Yuma	3,512	15	31.6	+ 1.8	71	12	− 3	21	54	0.77	+ 0.24	0.34	4.2	6	14	9	5	nw.	J. C. Tuomey.
Yuma	....do	4,138	20	.....	.....	.....	.....	.....	.....	.....	0.21	− 0.49	0.11	T.	3	19	1	8	se.	George W. Custer.
Nebraska.																				
Ainsworth	Brown	2,521	6	22.1[k]	.....	47	25	−10	21	40[k]	0.93	.....	0.46	14.2	3	.....	.....	.....	nw.	John M. Cotton.
Albion	Boone	1,747	15	22.6	− 0.4	51	12	− 5	21	47	1.24	+ 0.47	0.70	7.0	2	13	8	7	n.	F. M. Weitzel.
Alliance	Boxbutte	3,968	17	27.1	+ 3.4	63	11	− 9	22	47	0.08	− 0.31	0.08	0.8	1	15	10	3	ne.	J. A. Keegan.
Alma	Harlan	1,939	14	31.5	+ 4.6	71	12	0	21	43	0.65	− 0.06	0.26	2.5	4	13	7	8	n.	W. A. Sharpnack.
Anoka	Boyd	.....	4	20.2	.....	50	12	−12	21	50	1.72	.....	1.40	10.2	2	11	15	4	nw.	W. Whitla.
Arcadia	Valley	2,186	11	.....	.....	.....	.....	.....	.....	.....	0.55	− 0.10	0.30	4.0	3	2	20	6	nw.	J. L. Owen.
Ashland	Saunders	1,100	27	30.6	+ 6.1	60	12	4	21	38	2.30	+ 1.53	0.62	3.0	5	18	5	5	n.	Dr. A. S. von Mansfelder.
Ashton	Sherman	2,061	18	.....	.....	.....	.....	.....	.....	.....	0.16	− 0.22	0.08	.....	3	14	5	9	n.	F. Rein.
Atkinson	Holt	2,108	....	22.0	.....	52	12	− 8	21	44	.....	.....	.....	.....	.....	13	9	6	nw.	C. J. Wilson.
Auburn	Nemaha	1,051	20	33.5	+ 7.2	64	15	6	21	38	4.00	+ 2.72	1.88	2.5	6	15	2	11	n.	J. R. Huffman.
Aurora	Hamilton	1,792	....	30.0	+ 4.1	62	11	− 2	21	30	.....	.....	.....	.....	.....	21	4	3	n.	Chi., Burl. & Quincy R. R.
Beatrice	Gage	1,235	20	33.2	+ 7.2	65	12	5	21	39	2.53	+ 1.44	1.29	0	5	17	1	10	nw.	W. S. Waxham.
Beaver City	Furnas	2,147	19	32.4	+ 4.2	70	12	− 2	21	44	0.83	+ 0.20	0.37	.....	4	9	12	7	ne.	T. M. Davis.
Bellevue	Sarpy	1,210	27	30.6	.....	54	15†	4	21	33	3.01	+ 1.75	0.89	3.6	6	17	5	6	nw.	Prof. A. A. Tyler.
Benkelman	Dundy	2,968	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. D. Druliner.
Bertrand	Phelps	2,515	3	.....	.....	.....	.....	.....	.....	.....	0.64	.....	0.58	3.5	2	15	11	2	.....	W. F. Dobbin.
Blair	Washington	1,122	16	28.4	+ 6.6	55	24	2	21	40	1.57	+ 0.71	0.81	5.0	5	20	3	5	nw.	D. C. Van Deusen.
Bloomfield	Knox	.....	5	22.5	.....	48	24	− 9	21	40	2.70	.....	1.80	18.0	2	13	10	5	nw.	Dr. L. C. Bleick.
Bradshaw	York	1,715	12	.....	.....	.....	.....	.....	.....	.....	0.78	− 0.04	0.33	2.0	3	15	5	8	.....	E. C. Roggy.
Bridgeport	Morrill	3,658	14	30.7[d]	+ 6.2	66	11	6[g]	9	54[g]	T.	− 0.47	T.	T.	0	15	9	4	nw.	R. H. Willis.
Broken Bow	Custer	2,477	14	.....	.....	55	12	− 1	7	48	0.33	− 0.21	0.20	1.5	3	.....	.....	.....	.....	Chi., Burl. & Quincy R. R.
Burge	Cherry	2,674	5	26.3	.....	67	12	− 6	21	47	0.48	.....	0.48	3.0	1	11	8	9	nw.	H. A. Davis.
Cairo	Hall	1,951	2	.....	.....	.....	.....	.....	.....	.....	0.95	.....	0.54	4.1	3	.....	.....	.....	.....	Elliott Harrison.
Callaway	Custer	2,555	19	31.2	+ 6.3	67	13	− 2	21	50	0.75	+ 0.17	0.65	1.0	2	15	7	6	s.	J. H. Evans.
Cambridge	Furnas	2,258	4	32.0	.....	72	12	− 2	21	52	0.66	.....	0.31	.....	3	17	3	8	n.	Chas. Jensen.
Canton (near)	Boxbutte	.....	2	22.6[e]	.....	62	11	−15	21†	53[e]	0.35	.....	0.20	5.0	2	.....	.....	.....	nw.	A. E. Hann.
Columbus	Platte	1,442	18	27.0	+ 4.2	59	1	2	9†	41	1.78	+ 1.06	1.24	8.0	2	14	7	7	nw.	A. L. Rush.
Cozad	Dawson	2,496	3	.....	.....	.....	.....	.....	.....	.....	0.60	.....	0.45	5.0	2	.....	.....	.....	.....	A. A. Luttin.
Creighton	Knox	1,600	14	22.4	+ 3.6	46	25	− 8	21	28	1.89	+ 1.19	1.19	11.9	2	13	10	5	nw.	C. L. Cherry.
Crete	Saline	1,368	28	31.8	+ 7.2	66	12	2	21	44	2.17	+ 1.32	0.80	0.2	5	13	2	13	n.	Doane College.
Culbertson	Hitchcock	2,565	23	.....	.....	71	12	.....	.....	.....	0.38	− 0.19	0.30	.....	3	2	3	23	nw.	J. H. Corrick.
Curtis	Frontier	2,553	14	31.6	+ 5.7	66	12†	− 1	21	52	1.00	+ 0.08	0.44	5.0	3	17	6	5	e.	Dr. S. R. Razee.
David City	Butler	1,619	22	29.2	+ 6.8	57	12	0	21	34	1.59	+ 0.67	1.03	6.8	4	14	5	9	nw.	S. Clingman.
Dawson	Richardson	945	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. E. I. Atkinson.
Du Bois	Pawnee	1,074	6	.....	.....	.....	.....	.....	.....	.....	5.09	.....	1.57	.....	7	14	4	10	nw.	O. M. Backus.
Ellis	Gage	1,430	5	.....	.....	.....	.....	.....	.....	.....	2.85	.....	.....	.....	4	.....	.....	.....	.....	D. J. Wood.
Elmcreek	Buffalo	2,268	3	.....	.....	.....	.....	.....	.....	.....	0.75	.....	0.75	.....	1	.....	.....	.....	.....	E. L. Sutton.
Elsie	Perkins	3,382	3	.....	.....	.....	.....	.....	.....	.....	0.50	.....	0.40	5.0	2	.....	.....	.....	.....	J. F. Brittain.
Ewing	Holt	1,888	19	21.6	.....	46	1	− 6	21	43	0.95	+ 0.33	0.90	9.5	2	.....	.....	.....	.....	G. H. Benson.
Fairbury	Jefferson	1,316	36	33.6	+ 7.1	69	12	3	21	42	2.51	+ 1.63	1.21	0.3	6	11	8	9	nw.	W. F. Cramb.
Fairmont	Fillmore	1,641	17	28.7	+ 5.3	68	12	− 1	21	40	1.89	+ 1.03	1.09	T.	4	17	0	11	n.	Chi., Burl. & Quincy R. R.
Fort Robinson	Dawes	3,764	28	25.6	+ 2.4	62	11	−13	21	47	1.75	+ 1.18	0.80	13.5	7	16	0	12	w.	Post Surgeon.
Franklin	Franklin	1,820	21	32.0	+ 5.6	73	12	− 2	21	48	0.97	+ 0.39	0.64	1.5	3	14	4	10	n.	A. R. Peck.
Fremont	Dodge	1,203	30	28.4	+ 6.5	57	24	2	21	40	1.48	+ 0.51	0.55	5.5	4	8	9	11	nw.	Ernest Hahn.
Fullerton	Nance	1,629	10	27.2	.....	58	12	− 3	21	41	0.84	− 0.17	0.71	7.0	2	15	9	4	nw.	Dr. F. W. Johnson.
Geneva	Fillmore	1,433	21	31.8	+ 6.5	68	12	0	21	39	1.73	+ 0.15	0.47	T.	5	13	6	9	nw.	F. M. Flory.
Genoa	Nance	1,584	36	27.0	+ 4.4	56	12	− 2	21	41	1.46	+ 0.67	1.00	10.0	3	11	9	8	n.	F. W. Parsons.
Gordon	Cherry	3,550	9	26.0	.....	66	12	−10	21	49	0.03	.....	0.03	0.5	1	.....	.....	.....	nw.	G. F. Williams.
Gosper	Gosper	.....	8	.....	.....	.....	.....	.....	.....	.....	0.63	.....	0.34	2.0	4	12	10	6	n.	E. H. Stoll.
Gothenburg	Dawson	2,557	16	30.6	+ 4.7	70	12	− 4	21	46	0.34	− 0.49	0.20	3.4	3	13	7	8	nw.	Dr. W. J. Bartholomew.
Grand Island	Hall	1,860	20	30.2	+ 5.3	68	10†	− 2	21	47	0.50	− 0.25	0.36	.....	3	13	4	11	n.	E. A. Barnes.
Grant	Perkins	3,405	8	29.6	.....	70	12	− 8	21	58	0.42	.....	0.40	4.2	2	17	7	4	nw.	Cyrus Carver.
Greeley	Greeley	2,021	17	24.8	.....	58	10	− 5	21	51	1.28	+ 0.68	0.70	9.0	3	22	3	3	nw.	W. E. Morgan.
Guide Rock	Webster	1,646	10	.....	.....	.....	.....	.....	.....	.....	1.55	+ 0.58	0.80	1.0	3	11	8	9	n.	J. S. Marsh.
Halsey	Thomas	2,695	9	28.4	.....	66	12	− 5	21	45	0.62	.....	0.37	5.0	3	10	15	3	nw.	U. S. Forest Service.
Hartington	Cedar	1,309	20	24.9	+ 6.0	47	1	− 5	21	44	1.80	+ 0.78	1.40	14.0	2	12	11	5	nw.	D. E. Ewing.

TABLE 1.—*Climatological data for February, 1911. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Nebraska—Continued.																				
Harvard	Clay	1,812	23	28.0	+ 4.7	64	12	− 3	21	43	0.82	− 0.03	0.37	T.	4	16	5	7	nw.	Dr. J. T. Fleming.
Hastings	Adams	1,932	20	29.2	+ 4.3	68	12	− 3	21	43	0.60	− 0.45	0.50	0.5	2	14	9	5	nw.	Chi., Burl. & Quincy R. R.
Hayes Center	Hayes		17	30.0		70	12	− 6	21	50	0.80	− 0.30	0.50	5.0	3	19	5	4	n.	C. A. Ready.
Hay Springs	Sheridan	3,821	26	27.5	+ 5.5	63	12	− 7	21	47	0.40	− 0.29	0.20	4.0	3	10	13	5	nw.	A. Kadlecek.
Hebron	Thayer	1,458	26	32.2	+ 5.8	70	12	3	21	42	1.96	+ 1.20	0.77	T.	6					Dr. C. M. Easton.
Hemingford	Boxbutte	4,253	2								0.28		0.10		6					A. S. Enyeart.
Hendley	Furnas	2,231	7								0.90		0.40	5.0	3					T. L. Jones.
Hillside	McPherson	3,484	2	29.0		70	12	− 6	22	59	0.24		0.21	3.0	2	16	5	7	nw.	Mrs. M. R. Lloyd.
Holdrege	Phelps	2,324	20	29.6	+ 2.7	68	12	− 2	21	39	0.88	− 0.02	0.78	3.0	2	16	4	8	sw.	Chi., Burl.& Quincy R. R.
Hooper	Dodge	1,228	14	26.7	+ 5.1	54	23	1	20†	37	1.15	+ 0.25	0.55		4	18	5	5	nw.	Dr. W. H. Heine.
Imperial	Chase	3,278	20	28.2	+ 0.9	68	12	− 7	21	45	0.37	0.33	0.32	2.5	2	13	10	5	nw.	Robt. Malcolm.
Kearney	Buffalo	2,146	21	31.4[c]	+ 6.2	68	12	− 4	21	46[c]	0.40	− 0.41	0.20	3.0	3	12	8	8	n.	N. C. Dunlap.
Kimball	Kimball	4,097	20	28.0	+ 1.0	64	12	− 6	20	49	0.48	− 0.21	0.30	4.8	5	11	15	2	w.	F. J. Bellows.
Kirkwood	Rock		16	24.0	+ 2.5	55	12	− 8	21	43[b]	1.00	+ 0.36	0.70	10.0	2	19	4	5	nw.	Mrs. C. Arter.
Kowanda	Garden		3								0.04		0.04		1					Geo. W. Hulse.
Lexington	Dawson	2,385	22	31.5	+ 5.6	67	12†	− 3	21	49	0.51	− 0.33	0.30	0.2	3	20	0	8	n.	Robt. Chadwick.
Lincoln	Lancaster	1,189	31	31.0	+ 6.2	65	12	4	21	38	2.61	+ 1.31	0.76	1.0	5	9	7	12	n.	U. S. Weather Bureau.
Lodgepole	Cheyenne	3,820	13	30.3	+ 4.9	67	11	1	24	53	T.	− 0.53	T.	T.	0	19	7	2	n.	R. T. Kidney.
Loup	Sherman	2,067	17	27.2	+ 3.1	58	12†	− 5	21	42	0.65	+ 0.22	0.25	4.0	3	22	2	4	n.	E. S. Hayhurst.
Loyal	Custer																			C. H. Cass.
McCook	Redwillow	2,506	16	30.6	+ 3.0	72	12	− 7	21	59	0.47	− 0.15	0.25	2.0	3	20	3	5	n.	C. G. Coglizer.
McCool Junction	York	1,575	14								1.00	+ 0.41	0.65		3					L. L. Slagle.
Madison	Madison	1,585	18	25.8	+ 3.6	49	25	− 4	21	31	1.05	+ 0.22	0.70	7.2	3	12	7	9	nw.	Dr. F. A. Long.
Marquette	Hamilton	1,830	31								0.57	− 0.16	0.26	3.0	3					John Ellis.
Mason City	Custer	2,257	12								0.60	+ 0.05	0.60		1					J. A. Amsberry.
Minatare	Scotts Bluff	3,825																		Anthony Kennedy.
Minden	Kearney	2,169	34	28.9	+ 4.3	68	12	− 4	21	46	0.42	− 0.44	0.20	0.8	3	14	3	11	n.	Joel Hull.
Mitchell	Scotts Bluff		2	28.3		65	11	− 7	22	50	0.11		0.06	1.5	2	20	6	2	nw.	U. S. Reclamation Service.
Nebraska City	Otoe	941	32	32.2	+ 7.7	59	12	5	21	38	3.30	+ 2.24	1.50	1.0	5	13	3	13	s.	Chi., Burl. & Quincy R. R.
Norfolk	Madison	1,532	28	23.8	+ 2.9	50	24	− 5	21	46	1.07	+ 0.24	0.72	7.2	3	16	5	7	nw.	Dr. P. H. Salter.
North Loup	Valley	1,961	23	26.9	+ 3.4	57	12	− 3	21	41	1.52	+ 0.87	0.75	6.6	3	11	11	6	n.	W. G. Rood.
North Platte	Lincoln	2,841	37	29.8	+ 5.2	70	12	− 2	21	50	0.39	− 0.01	0.31	4.1	2	10	11	7	n.	U. S. Weather Bureau.
Oakdale	Antelope	1,722	23	22.0	+ 2.4	46	24	− 5	21	43	1.56	+ 0.87	1.20	12.5	2	11	10	7	nw.	G. S. Clingman.
Odell	Gage	1,278	16								3.85	+ 2.68	1.35		5	11	3	14		Chi., Burl. & Quincy R. R.
Omaha	Douglas	1,103	41	29.4	+ 5.7	54	24	5	21	33	2.13	+ 1.37	0.81	2.3	5	10	8	10	n.	U. S. Weather Bureau.
Ord	Valley	2,062	16								1.14	+ 0.51	0.62		3	8	14	6	nw.	James Milford.
Orleans	Harlan	1,993																		James McGeachin.
Osceola	Polk	1,644	15	26.5		52	1	− 2	21	34	1.20	+ 0.47	0.70	7.0	2	8	17	3	nw.	G. T. Ray.
Palisade	Hitchcock		2								0.48		0.46		2					E. E. Young.
Palmyra	Otoe	1,142	15	30.6	+ 6.6	60	12	4	21		3.16	+ 2.23	1.98	1.5	5	16	8	4	n.	Thos. Coles.
Pawnee City	Pawnee	1,175	15	33.4		64	15	7	21	43	3.83	+ 2.87			6	17	1	10	nw.	F. A. Barton.
Paxton	Keith	3,060	2								0.40		0.25	4.0	4					H. D. Lute.
Plymouth	Jefferson	1,419	7	30.7		68	12	3	21†	42	2.01		0.83		4	7	11	10	nw.	John Ruppel.
Purdum	Blaine		11	26.9		66	12	− 6	21	47	0.63	− 0.37	0.30	6.0	3	18	5	5	nw.	T. C. Jackson.
Ravenna	Buffalo	2,028	34	29.2	+ 5.0	65	12	− 5	21	47	0.77	− 0.10	0.28		3	16	5	7	nw.	H. G. Smith.
Red Cloud	Webster	1,687	20	33.0	+ 4.4	73	12	1	21	44	0.97	+ 0.38	0.37	1.0	5	16	1	11	nw.	Chas. S. Ludlow.
St. Libory	Howard	1,887	15								0.90	+ 0.09	0.40	6.0	3	15	6	7	nw.	W. I. Meader.
St. Paul	....do	1,796	16	28.6	+ 2.8	60	12	− 2	21	36	0.96	+ 0.29	0.40	6.0	3	17	7	4	nw.	Paul Anderson.
Santee	Knox		23	29.0	+ 9.2	52	24	− 4	22	37						16	11	1	se.	Nat H. Neff.
Sargent	Custer	2,339	11	27.0		64	13	− 6	21	40[c]	0.10	− 0.48	0.10		1				nw.	J. L. Ferguson.
Schuyler	Colfax	1,357	18	27.1		57	12	− 2	21	45	1.85	+ 0.99	1.55	8.6	3	11	9	8	n.	J. T. Sumner.
Scottsbluff	Scotts Bluff	3,888	5	30.4		67	11	− 4	22	51[a]	0.20		0.08	2.0	3	18	4	6	nw.	A. B. McCoskey.
Seward	Seward	1,435	21	28.4	+ 3.5	64	11	0	19	40	1.94	+ 0.97	0.54	T.	5	17	4	7	nw.	Chi., Burl. & Quincy R. R.
Sheridan	Garfield		3								0.80		0.45	8.0	3	22	0	6	sw.	J. M. Kenney.
Sidney	Cheyenne	4,030	20								0.25	− 0.37	0.10	2.5	3	22	4	2	sw.	John P. Fischer.
Springview	Keyapaha		17	24.2	+ 2.5	63	12	− 8	21	44	1.00	+ 0.31	0.60	10.0	2	11	12	5	nw.	C. L. Phelps.
Stanton	Stanton	1,472	19	23.8	+ 3.1	47	12	− 6	22	36	1.25	+ 0.43	1.00	12.0	2	13	11	4	sw.	Alfred Pont.
Stratton	Hitchcock	2,804	16								0.75	+ 0.10	0.45		2					Miss Stella Vennum
Superior	Nuckolls	1,574	24								1.70	+ 0.87	0.65		4					F. V. Bishop.
Syracuse	Otoe	1,059	18	31.4	+ 7.1	60	12	4	21	40	3.05	+ 1.88	1.15	1.5	4	12	5	11	nw.	W. N. Hunter.
Table Rock	Pawnee	1,023	23								4.60	+ 3.31	2.18	T.	6	12	6	10	n.	E. D. Howe.
Tecumseh	Johnson	1,113																		L. E. Pratt.
Tekamah	Burt	1,000	20	27.8	+ 5.3	54	24	0	9	41	1.87	+ 0.81	1.00	8.5	5	7	13	8	nw.	Dr. A. D. Nesbit.
Tobias	Saline	1,597	2					2	21		1.57		0.70	T.	3	13	5	10	n.	Frank Ainsworth.
University Farm	Lancaster		23	32.0	+ 5.9	64	12	9	2†	39	2.19	+ 1.13	0.71		6	13	7	8		S. W. Perin.
Valentine	Cherry	2,613	22	26.0	+ 4.8	66	12	− 5	21	46	0.71	+ 0.11	0.48	7.1	3	12	14	2	nw.	U. S. Weather Bureau.
Wahoo	Saunders	1,187	8								1.90		0.53	4.0	5	16	5	7	sw.	W. T. Mauck.
Wakefield	Dixon	1,387	17	24.0	+ 4.2	48	1†	− 9	10	50	1.87	+ 0.96	1.40	14.0	2	15	4	9	nw.	I. H. Weaver.
Walthill	Thurston		10	24.2		52	25	0	20†	43[a]	0.65	− 0.16	0.40	1.2	5					A. P. Coleman.
Watertown	Buffalo	2,299	5								0.38		0.35	2.0	2	1	20	7	sw.	R. E. Swift.
Wauneta	Chase		12								0.70	+ 0.02	0.40	7.0	3					C. D. Fuller.
Weeping Water	Cass	1,080	33	31.2		60	12	4	21	40	2.83	+ 1.81	0.84	1.5	6	17	2	9	nw.	S. W. Orton.
Westpoint	Cuming	1,313	25			52	24				1.48	+ 0.74	1.10	11.0	2	18	5	5	n.	J. C. Elliott.
Wisner	....do	1,380	14								1.25	+ 0.51	0.75	14.5	3	21	0	7		F. C. Evans.
Woodlawn	Lancaster																			H. C. Kendall.
York	York	1,633	20	30.9	+ 5.6	67	12	− 1	21	39	0.99	+ 0.19	0.38	2.5	4	16	5	7	nw.	A. T. Glauque.
Iowa.																				
Afton§	Union	1,212	17	30.6	+ 8.6	59	1	7	21	29	4.52	+ 3.57	2.00		6	10	3	15	nw.	Hon. N. W. Rowell.
Allerton§	Wayne		9	32.4	+10.7	63	1	8	21	32	4.96	+ 3.62	1.45	6.3	8	13	2	13	nw.	Mrs. Geo. Shriver.
Alton	Sioux	1,305	6	23.6		50	1	− 6	10	39	1.30		0.70	6.0	2	16	6	6	nw.	W. S. Slagle.
Atlantic	Cass	1,164	20	28.2	+ 7.4	56	15	− 1	10	39	2.69	+ 1.64	0.64	6.0	5	8	7	13	nw.	Thos. H. Whitney.
Audubon§	Audubon	1,301	17	28.4	+ 9.3	53	23	− 3	10	38	2.61	+ 1.82	1.10	12.0	6	12	6	10		Geo. E. Kellogg.
Bedford§	Taylor		11	32.2	+11.5	63	15	5	21	34	4.80	+ 3.76	1.91	3.0	8	13	4	11	nw.	E. E. Healy.
Centerville	Appanoose		1								3.32		1.54	5.0	4	21	2	5	w.	Gordon Peacock, jr.
Chariton§	Lucas	1,042	16	30.4	+ 8.2	62	1	4	10	41	4.71	+ 3.68	1.55	6.0	7	9	7	12	n.	C. C. Burr.
Clarinda	Page	1,009	21	29.5	+ 6.9	64	15	6	21	36	4.06	+ 3.06	2.10	2.5	7	15	4	9	nw.	A. S. Van Sandt.
Corning§	Adams	1,117	19	27.5	+ 5.6	54	15	5	10†	32	4.48	+ 3.60	2.34	4.0	5	15	4	9	nw.	Jerome Smith.
Corydon§	Wayne	1,101	18	31.4[f]	+ 9.2	60	1	7	10	32[f]	4.69	+ 3.37			7					Clara Miller.
Council Bluffs	Pottawattamie		1	29.3		53	1	3	21†	38	2.46		0.75	4.5	5				nw.	B. W. Crossley.
Creston	Union	1,312	6	27.7		61	15	5	21	31	4.70		1.63	6.0	7	12	2	14	nw.	O. J. Colby.
Cumberland	Cass		12								2.64	+ 1.74	0.80	6.0	5	12	7	9	n.	J. H. Reppert.
Denison	Crawford	1,180	17	26.0	+ 6.9	52	24	− 6	10	43	1.65	+ 0.79	0.65	8.5	5	16	6	6	n.	W. C. Van Ness.
Elliott	Montgomery		6	29.5		57	15	5	21	36	3.92		1.92	2.0	5	12	8	8	nw.	Henry Barnes.
Greenfield	Adair		19	27.6	+ 7.0	55	1	4	21	31	3.58	+ 2.57	1.15	8.0	5	12	8	8	nw.	R. B. Oldham.
Harlan§	Shelby	1,182	12	26.8	+ 8.7	53	24	− 3	8†	41	2.77	+ 1.92	1.00	12.0	6	9	10	9	nw.	C. A. Reynolds.
Inwood§	Lyon	1,474	7	22.4		48	24†	−11	10	44	1.00		0.50	7.0	4	16	6	6	nw.	F. B. Hanson.

TABLE 1.—*Climatological data for February, 1911. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Iowa—Continued.																				
Lamoni	Decatur	.....	4	31.9	.....	60	1†	8	10†	31	3.68	.....	1.15	.....	9	15	1	12	nw.	T. J. Fitzpatrick.
Larrabee	Cherokee	1,266	21	23.6	+ 5.8	47	24	— 5	10	36	1.10	+ 0.26	0.55	5.5	2	11	9	8	n.	H. B. Strever.
Le Mars§	Plymouth	1,224	15	23.6	+ 7.1	48	1	— 5	10	39	0.97	+ 0.25	0.58	6.0	2	10	11	7	nw.	G. A. C. Clarke.
Lenox§	Taylor	1,250	16	30.1	+ 8.4	59	15	5	21	32	3.05	+ 2.21	1.51	2.4	6	18	2	8	nw.	J. L. Hurley.
Leon	Decatur	1,120	9	31.2	.....	60	1†	7	21	30	4.64	.....	1.18	5.5	8	12	3	13	nw.	Morris Gardner.
Little Sioux§	Harrison	.....	6	28.0	.....	55	24	0	10†	44	1.38	.....	0.70	6.0	5	14	6	8	nw.	Geo. H. Gibson.
Logan§	do	928	44	28.2	+ 4.8	54	24	0	8	39	1.61	+ 0.41	1.17	.....	5	13	8	7	nw.	Glenn H. Stern.
Mount Ayr§	Ringgold	1,236	18	32.0	+ 9.5	64	15	7	21	32	4.25	+ 3.08	1.51	8.3	8	9	8	11	nw.	A. F. Beard.
Murray	Clarke	.....	20	30.4	+ 8.4	61	1†	7	10†	32	4.31	+ 3.52	1.60	.....	9	8	10	10	nw.	M. T. Ashley.
Odebolt§	Sac	.....	14	26.0	+ 7.6	52	24	— 3	10	41	1.37	+ 0.50	0.80	9.0	4	18	1	9	.....	E. Starner.
Onawa§	Monona	1,051	11	27.9	+ 6.9	53	24	2	21	38	1.20	+ 0.21	0.70	7.5	4	16	1	11	nw.	C. G. Perkins.
Pacific Junction§	Mills	960	12	30.1	+10.5	55	1†	5	21	39	2.94	+ 2.34	0.95	.....	5	12	10	6	n.	H. H. McCartney.
Rock Rapids§	Lyon	1,358	12	22.0	+ 5.4	50	1	— 6	10	41	0.50	+ 0.14	0.40	1.0	2	.....	.....	.....	.....	W. C. Wyckoff.
Sheldon§	O'Brien	1,422	11	23.5	+ 7.8	50	24	— 7	10	40	1.30	+ 0.37	0.75	7.0	3	14	8	6	nw.	Dr. A. W. Beach.
Sibley	Osceola	1,212	18	20.4	+ 5.4	48	24	— 6	10	41	1.09	+ 0.62	0.50	5.5	3	15	5	8	nw.	H. G. Doolittle.
Sioux Center§	Sioux	.....	12	22.8	+ 6.4	46	1	— 4	21	34	1.02	+ 0.32	0.60	6.0	2	14	3	11	nw.	J. de Ruyter.
Sioux City	Woodbury	1,135	22	24.0	+ 4.2	49.	24	— 2	21	44	1.58	+ 1.03	1.10	13.2	3	11	7	10	nw.	U. S. Weather Bureau.
Spencer	Clay	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. Gillespie.
Thurman§	Fremont	.....	14	30.3	+ 8.8	54	1†	5	21	35	3.71	+ 2.38	1.34	.....	5	11	6	11	nw.	C. R. Paul.
Washta§	Cherokee	1,157	13	25.0	+ 2.8	51	24	—13	10	49	1.48	+ 0.72	1.00	10.0	2	16	4	8	s.	H. L. Felter.
Woodburn§	Clarke	961	12	30.2	.....	65	1	— 4	8	48	4.84	+ 3.60	1.82	5.5	10	11	6	11	nw.	C. B. McDonough.
Kansas.																				
Abilene	Dickinson	1,157	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. W. Sherman.
Agricultural College	Riley	1,100	53	35.3	+ 5.4	71	1	2	20†	41	5.78	+ 4.65	1.91	9.0	11	16	2	10	sw.	Prof. J. O. Hamilton.
Alton	Osborne	1,651	9	34.7	.....	78	12	3	21	47	1.34	+ 0.43	0.71	1.0	4	13	8	7	s.	H. A. Storer.
Atchison	Atchison	973	20	35.3	+ 8.1	70	15	7	21	34	5.00	+ 3.74	1.40	9.0	10	13	3	12	w.	Prof. M. F. Troxell.
Baker	Brown	1,182	11	32.4	.....	67	15	5	21	32	4.52	.....	1.06	5.0	7	5	3	20	n.	E. A. Bastien.
Beloit	Mitchell	1,383	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Frank A. Slack.
Blakeman	Rawlins	2,894	14	31.1	.....	73	12	— 5	21	62	0.44	— 0.24	0.30	2.5	4	17	2	9	nw.	C. L. Henderson.
Blue Rapids	Marshall	1,105	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Norton.
Centralia	Nemaha	1,256	2	33.8	.....	65	1	5	21	36	5.46	.....	1.75	4.0	9	14	3	11	nw.	N. S. Hazen.
Chapman	Dickinson	1,113	7	36.0	.....	73	1	3	20†	38	5.36	.....	1.80	5.0	6	16	3	9	sw.	Dr. R. McShea.
Clay Center	Clay	1,203	10	34.6	.....	70	1	4	21	42	5.30	.....	2.03	6.2	7	14	3	11	n.	O. L. Slade.
Colby	Thomas	3,138	20	33.6	+ 7.0	83	12	— 6	21	61	0.56	+ 0.02	0.29	2.0	5	19	2	7	n.	E. V. Snell.
Concordia	Cloud	1,398	27	34.3	+ 5.5	71	12	6	21	40	3.19	+ 2.44	1.92	1.1	6	6	12	10	n.	U. S. Weather Bureau.
Densmore	Norton	2,200	2	34.0	.....	72	12	0	21	48	0.96	.....	0.56	3.0	3	11	10	7	ne.	F. S. Griffith.
Dresden	Decatur	2,731	17	32.2	+ 5.1	74	13	— 3	21	46	1.07	+ 0.18	0.50	5.0	3	16	5	7	nw.	Jacob Bock.
Ellsworth	Ellsworth	1,537	7	33.8	.....	74	12	1	21	52	4.60	.....	1.79	6.8	7	12	10	6	s.	Geo. Seitz.
Enterprise	Dickinson	1,144	9	36.0	.....	75	1	2	21	39	4.65	+ 3.55	1.49	7.6	9	14	4	10	s.	H. O. Wagner.
Eskridge	Wabaunsee	1,412	5	34.8	.....	70	1†	0	21	36	5.31	.....	1.61	11.0	9	14	3	11	s.	Geo. D. West.
Farnsworth	Lane	2,850	10	33.9	+ 4.9	80	12	— 8	22	51	1.78	+ 1.05	0.55	6.9	7	17	3	8	n.	C. M. Jenison.
Fort Scott	Bourbon	857	36	39.9	+ 7.4	84	1	10	21	43	6.41	+ 4.45	3.30	14.0	9	18	1	9	sw.	E. A. Shaver.
Frankfort	Marshall	1,146	17	34.8	+ 7.6	66	1	6	21	44	5.65	+ 4.40	2.00	3.5	9	10	10	8	nw.	E. C. Dunham.
Garnett	Anderson	950	5	38.4	.....	78	1	7	21	40	5.83	.....	1.72	11.5	10	13	6	9	s.	D. D. Judy.
Goodland	Sherman	3,687	4	31.6	.....	66	1†	— 4	22	41	1.68	.....	0.50	9.0	6	21	0	7	n.	C. C. Calvert.
Gove	Gove	2,750	22	32.4	+ 3.5	79	12	— 3	21	54	1.32	+ 0.03	0.75	5.0	6	15	5	8	ne.	Jesse Royer.
Hanover	Washington	1,225	14	34.6	.....	68	12	5	21	40	3.56	+ 2.60	1.90	0.1	5	14	4	10	n.	August Jaedicke, jr.
Harrison	Jewell	1,804	10	33.2	+ 6.6	72	12	2	21	42	1.61	+ 0.69	0.65	0.2	5	20	2	6	n.	Mahlon Tegley.
Hays	Ellis	2,000	43	33.9	+ 5.8	81	12	5	21	49	2.12	+ 1.27	1.02	5.0	6	14	9	5	nw.	G. K. Helder.
Hill City	Graham	2,134	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. R. Mort.
Horton	Brown	1,188	22	34.2	+ 6.9	67	15	8	21	32	4.75	+ 3.58	1.55	4.5	9	12	5	11	n.	Mrs. S. C. Belden.
Hoxie	Sheridan	2,700	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. D. Gallogly.
Jewell	Jewell	1,540	6	.....	.....	.....	.....	.....	.....	.....	2.86	.....	1.19	1.0	5	.....	.....	.....	n.	C. A. Shinn.
Lawrence	Douglas	997	43	35.8	+ 5.7	72	1	7	21	36	5.46	+ 3.93	1.73	5.8	11	8	8	12	n	Prof. H. P. Cady.
Lebanon	Smith	1,812	13	33.4	+ 5.4	71	12	1	21	39	1.75	+ 1.02	0.87	2.0	5	22	0	6	n.	Earl V. Bower.
Lindsborg	McPherson	1,333	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. J. Fredrickson.
Mankato	Jewell	1,784	2	32.8	.....	74	12	0	21	42	1.83	.....	0.71	2.0	5	13	5	10	n.	R. M. Cauthorn.
Minneapolis	Ottawa	1,259	21	34.9	+ 6.9	72	1	6	21	36	5.02	+ 4.22	2.30	7.0	6	14	4	10	n.	J. L. Steele.
Moran	Allen	1,098	15	39.6	+ 9.8	83	1	10	20†	45	3.95	+ 2.40	1.75	9.0	10	13	5	10	sw.	C. J. Norton.
Natoma	Osborne	1,834	2	.....	.....	.....	.....	.....	.....	.....	2.55	.....	0.80	3.0	5	19	3	6	s.	C. O. Hunt.
Norton	Norton	2,284	13	32.4	+ 5.0	71	12	— 6	20	42	0.81	+ 0.10	0.40	4.0	4	13	9	6	ne.	Sim Sieffel.
Oberlin	Decatur	2,539	24	.....	.....	.....	.....	.....	.....	.....	0.90	+ 0.04	0.30	4.5	4	19	5	4	nw.	I. K. Huber.
Oketo§	Marshall	1,194	3	35.4	.....	66	1	5	21	39	3.42	.....	2.02	0.2	6	10	7	11	nw.	J. A. Church.
Olathe	Johnson	1,032	16	36.2	+ 6.6	74	1	5	21	36	4.85	+ 3.31	1.33	8.0	9	13	3	12	ne.	Dr. S. B. S. Wilson.
Osage City	Osage	1,081	12	36.4[d]	.....	74	15	6	21	46[d]	4.52	+ 3.21	1.23	7.2	8	11[d]	1[d]	12[d]	n.	W. C. White.
Ottawa	Franklin	926	17	38.4	+ 8.7	76	1	7	21	43	4.81	+ 3.28	2.26	4.5	9	15	3	10	n.	H. F. McDougal.
Phillipsburg	Phillips	1,939	20	33.4	+ 6.4	73	12	1	21	47	0.82	— 0.03	0.55	2.0	4	14	8	6	ne.	N. E. Bailey.
Pleasanton	Linn	862	9	38.0	.....	79	1	9	21	41	5.85	.....	2.38	13.0	12	14	5	9	nw.	B. F. Blaker.
Russell	Russell	1,834	12	35.7	+ 5.0	80	12	4	21	55	2.58	+ 1.90	1.32	6.5	5	14	6	8	nw.	Robert Brebner.
Russell Springs	Logan	.....	1	31.7	.....	78	12	— 6	22	60	1.32	.....	0.50	5.0	4	17	3	8	ne.	D. J. Hutto.
St. Francis	Cheyenne	3,288	3	32.0	.....	73	12	— 5	21	58	0.45	.....	0.30	4.0	4	14	9	5	ne.	J. E. Uplinger.
Salina	Saline	1,227	27	34.3	+ 5.8	73	1	3	22	43	4.68	+ 3.87	1.59	8.0	8	13	8	7	n.	Prof. A. W. Jones.
Scott	Scott	2,971	5	32.4	.....	78	12	— 9	22	51	2.07	.....	0.68	9.5	7	17	3	8	n.	J. P. Loughran.
Smith Center	Smith	1,800	1	.....	.....	.....	.....	.....	.....	.....	1.15	.....	0.66	2.0	4	13	5	10	nw.	W. H. Nelson.
Topeka	Shawnee	997	25	35.6	+ 5.6	71	15	7	21	38	5.59	+ 4.21	2.58	7.8	8	14	6	8	nw.	U. S. Weather Bureau.
Valley Falls	Jefferson	913	12	35.2	+ 7.0	71	15	4	21	34	4.68	+ 3.27	1.80	6.0	10	15	6	7	nw.	Miss Nettie Maxwell.
Vinland§	Douglas	880	2	.....	.....	.....	.....	.....	.....	.....	5.89	.....	1.60	4.5	10	.....	.....	.....	.....	A. Schick.
Wakeeney	Trego	2,456	28	33.2	+ 3.6	78	12	1	21	44	1.28	+ 0.45	0.76	3.0	5	20	2	6	n.	A. S. Peacock.
Wallace	Wallace	3,303	41	31.7	.....	72	11	— 7	22	62	0.81	+ 0.36	0.33	7.5	7	6	11	11	sw.	M. T. Griggs.
Wamego§	Pottawatomie	1,002	18	.....	.....	.....	.....	.....	.....	.....	6.29	+ 4.99	2.50	11.7	8	11	9	8	n.	M. L. Stone.
Missouri.																				
Amoret	Bates	850	2	39.2	.....	82	1	9	21†	43	4.10	.....	2.01	13.0	4	12	6	10	sw.	Darby Fruit Farm.
Appleton City	St. Clair	853	21	39.4	+ 7.6	83	1	8	22	46	3.69	+ 1.56	1.50	14.0	7	6	16	6	n.	T. C. Brown.
Arlington	Phelps	695	21	.....	.....	.....	.....	.....	.....	.....	4.75	+ 1.73	1.60	8.2	9	12	1	15	nw.	Geo. V. Randolph.
Arthur	Vernon	767	19	40.6	+10.4	87	1	10	21†	50	5.83	+ 4.07	3.17	11.5	8	12	8	8	nw.	J. T. Armstrong.
Avalon	Livingston	.....	26	34.8	+ 6.0	72	15	8	21	40	4.74	+ 2.50	2.03	6.0	8	13	5	10	sw.	F. G. Ashbaugh.
Bagnell	Miller	594	4	.....	.....	.....	.....	.....	.....	.....	6.29	.....	1.60	.....	11	13	0	15	w.	W. S. Brockman.
Bethany	Harrison	881	21	34.1	+ 8.5	65	1	10	21	35	5.06	+ 3.68	1.42	2.0	7	14	2	12	nw.	W. H. Skinner.
Bolivar	Polk	1,070	23	41.8	+ 8.6	85	15	7	22	54	3.27	+ 1.93	0.91	10.5	9	10	13	5	se.	E. Waltz.
Boonville§§	Cooper	600	34	.....	.....	.....	.....	.....	.....	.....	3.17	+ 0.45	0.86	9.0	8	13	2	13	nw.	C. Randecker.
Brunswick	Charitan	652	32	34.7	+ 6.3	74	1	9	21	37	4.08	+ 2.12	1.08	10.0	10	13	3	12	nw.	Louis Benecke.
Clinton	Henry	800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. G. W. Menees.
Columbia	Boone	784	21	36.4	+ 6.3	81	1	7	21	48	3.04	+ 0.91	1.67	14.1	9	10	10	8	s.	U. S. Weather Bureau.
Conception§	Nodaway	982	28	33.2	+ 7.1	66	15	8	21	32	3.50	+ 2.47	1.43	0.5	5	11	8	9	ne.	Fr. Adhelm Hess.
Eldorado Springs	Cedar	750	6	40.7	.....	84	1	11	21†	54	5.97	.....	2.30	18.0	7	10[a]	8[a]	9[a]	n.	Samuel Graham.
Fairport	Dekalb	920	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. W. Lincoln.
Fayette§	Howard	725	28	35.6	+ 6.5	78	1	8	21	48	3.27	+ 1.22	1.00	15.0	7	14	2	12	.....	Prof. T. Berry Smith.

TABLE 1.—*Climatological data for February, 1911. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainydays, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Missouri—Contd.																		
Fulton	Callaway	818	20	37.3	+ 7.8	81	1	0	21	45	3.38	+ 1.31	2.25	12.0	9	8	13	7	w.[d]	Dr. J. L. Brenneman.
Glasgow	Howard	618	33	.....	.....	.....	.....	.....	.....	.....	2.01	− 0.29	0.48	13.2	9	11	2	15	n.	J. J. Shaughnessy.
Grant City	Worth	1,130	19	33.0	.....	66	15	8	21	33	4.16	+ 3.14	1.28	3.5	7	12	4	12	nw.	W. H. Campbell.
Harrisonville§§	Cass	912	38	35.4	+ 8.4	77	1	8	21†	40	6.11	+ 4.01	1.10	8.0	10	15	0	13	nw.	A. J. Sharp.
Hazelhurst	Livingston	.....	18	.....	.....	.....	.....	.....	.....	.....	7.42	+ 5.89	2.50	6.0	10	.....	.....	.....	.....	W. H. Baker.
Hermann	Gasconade	482	36	.....	.....	.....	.....	.....	.....	.....	2.82	+ 0.31	0.90	10.0	9	10	2	16	n.	C. T. Maushund.
Houston	Texas	1,280	19	40.4	+ 7.1	83	1	4	22	50	3.30	+ 0.88	1.75	6.0	5	8	12	8	s.	E. Dempsey.
Jefferson City§§	Cole	628	30	36.0	+ 5.2	84	1	8	22	46	3.58	+ 1.34	1.25	13.0	9	16	2	10	n.	Miss Emma Swift.
Kansas City	Jackson	963	23	36.0	+ 6.1	72	15	10	21	40	6.76	+ 5.17	2.08	12.3	11	12	5	11	n	U. S. Weather Bureau.
Kidder§§	Caldwell	1,017	21	33.4	+ 7.3	70	15	8	21	35	5.76	+ 4.33	2.10	10.0	8	13	3	12	nw.	J. F. Sharp.
Lamonte	Pettis	863	23	37.3	.....	80	1	2	21	44	3.83	+ 1.81	1.53	11.0	8	11	2	15	nw.	Dr. W. E. Walker.
Lebanon	Laclede	1,265	23	41.2	+ 7.5	82	1	8	21†	49	4.38	+ 2.24	1.45	12.5	6	11	11	6	s.	M. W. Serl.
Lexington§§	Lafayette	813	29	36.0	+ 7.4	75	1†	6	21	40	4.61	+ 2.60	1.16	10.5	10	16	1	11	n.	J. W. Keithley.
Liberty	Clay	864	23	37.2	+ 8.3	73	15	6	21	38	6.77	+ 5.13	2.30	14.0	8	14	8	6	nw.	W. C. Wilmott.
Lockwood	Dade	1,088	18	41.8	.....	84	1	13	22	45	4.63	+ 2.40	1.42	5.0	5	15	0	13	ne.	C. S. Crow.
Marshall	Saline	779	21	36.8	+ 8.4	76[d]	15	8	21	43[d]	3.05	+ 1.12	1.35	12.0	6	14	6	8	nw.	Dr. W. H. Black.
Marshfield	Webster	1,492	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. A. McCombs.
Maryville§§	Nodaway	1,100	21	30.6	+ 7.8	66	15	7	21†	38	4.22	+ 2.99	1.61	0	6	15	3	10	n.	J. R. Brink.
Mount Vernon	Lawrence	1,480	33	43.1	+10.0	80	15	13	22	38	3.42	+ 0.66	1.15	1.2	5	18	2	8	sw.	J. R. White & Son.
Nevada	Vernon	860	17	.....	.....	.....	.....	.....	.....	.....	4.79	+ 2.86	2.92	1.7	7	12	8	8	sw.	C. Jewell.
Oregon	Holt	1,113	54	31.0	+ 3.0	65	15	3	21	36	4.36	+ 2.67	1.80	1.8	6	13	4	11	n.	Tom Curry.
Osceola	St. Clair	738	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. E. Matthews.
Pattonsburg	Daviess	.....	1	.....	.....	.....	.....	.....	.....	.....	5.31	.....	2.13	2.1	8	13	0	15	nw.	Wm. Burton.
Rolla	Phelps	1,092	30	40.4	+ 4.3	84	1	8	21†	53	3.47	+ 1.06	1.40	10.6	9	15	4	9	ne.	Prof. P. J. Wilkins.
St. Charles	St. Charles	614	32	39.0	+ 7.5	82	1	7	21	51	3.14	+ 0.16	0.91	12.0	6	12	4	12	s.	L. C. Saeger.
St. Joseph	Buchanan	967	39	34.2	.....	69	15	9	21	37	6.19	+ 5.01	3.01	6.9	10	10	6	12	nw.	U. S. Weather Bureau.
St. Louis	St. Louis City	567	38	38.4	+ 4.9	84	1	16	22	40	3.02	+ 0.27	0.97	13.0	6	10	7	11	nw.	Do.
Sublett	Adair	1,000	30	33.8	+ 9.6	66	1	8	22	34	3.87	+ 1.86	1.60	2.2	5	8	5	15	se.	Lewis Spriggs.
Trenton	Grundy	812	16	34.6	+ 7.2	61	1	11	21	37	7.24	+ 5.89	2.86	2.8	11	12	4	12	n.	W. H. Estes.
Unionville§§	Putnam	1,072	18	31.2	+ 7.2	64	14	7	21	35	7.45	+ 5.76	3.15	11.0	7	11	4	13	n.	Geo. W. Davis.
Warrensburg	Johnson	883	32	38.3	+ 7.5	79	1	9	21	41	4.22	+ 2.13	1.24	10.0	9	14	3	11	sw.	A. F. Smithson.
Warrenton§§	Warren	865	21	36.0	+ 6.6	85	1	9	21†	47	3.19	+ 0.65	1.10	9.0	9	8	4	16	nw.	Dr. John H. Frick.
Warsaw	Benton	700	7	42.6	.....	86	15	10	22	52	4.74	.....	2.17	12.0	8	11	10	7	ne.	Dr. J. R. Smith.
Wheatland	Hickory	920	19	.....	.....	.....	.....	.....	.....	.....	3.70	+ 1.83	2.00	12.0	4	12	8	8	s.	Mrs. S. A. Jackson.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from the observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 6, Missouri Valley.*

Stations.	Watershed.	Day of month.																									Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Wyoming.																														
Arapahoe	Bighorn					.07	T.								T.					.10						T.	.10			0.27
Barnum	Powder					T.																								T.
Basin	Bighorn																													
Bennett	North Platte			.04			.12						.11		.34	.18											.16			0.95
Big Creek	....do		T.		.11	.10	.15	T.					.18	T.	T.					T.						.10	T.	T.	T.	0.64
Casper	....do														.40	.20											.80			1.40
Centennial	....do	.05		.03	.01	.36	.01	.03					.02	T.	.08	T.	.10		T.	.34	.03	T.				T.	.60	.03	.12	1.81
Cheyenne	South Platte				.02										T.	.07	.02		.07	.07	.01					.03	.22	.04	.01	0.56
Chugwater	North Platte															T.	.20		T.	.10							.30			0.60
Clark	Clarks Fork	.02	T.				T.										T.			.04	T.	T.				T.	.05	.05		0.16
Cody	Bighorn																										T.			T.
Crazy Creek	Clarks Fork	.04	.04				.13							.04																0.25
Dome Lake	Tongue	.20				.15	.10	.10					.10			.10											.20			0.95
Douglas	North Platte				T.										.28	.13			.02							.02	.02	T.		0.45
Dubois	Bighorn						.10	T.					T.	T.	T.					.10	.05	T.				.05	.30	.20		0.80
Eatons Ranch	Tongue	.10					T.							.20		.20										.40	1.20			2.10
Echeta	Powder					T.	T.						T.						T.								.20			0.20
Elk Mountain	North Platte	.27				.78		.40					.09			.40											.20			2.14
Encampment	....do	.01				.30	T.						.03		.40	.05	.01			T.							.05		.14	0.99
Ervay	....do					T.								.08	.12	T.				.09	.02					.40	.08			0.79
Fort Laramie	....do																.20			.26							.12	.08	T.	0.66
Gillette	Powder	T.					.10							T.	.12	T.											.18		T.	0.40
Hunters Station	....do						.28								.04	.11				T.						T.	.14			0.57
Jireh	Niobrara														T.		.20										T.			0.20
Kirtley	....do																.16										.03			0.19
Knowles	Bellefourche			T.		T.		.03							.01											.13	.04	.04		0.25
La Grange	North Platte					.03												.03	.04								.04	.02	.02	0.16
Lander	Bighorn		T.		.01		T.								.20	.24			.20	.59	.01	T.				.28	.79			2.32
Laramie	North Platte											.05			T.	T.	.10				T.						T.	T.		0.15
Leo	....do																													
Lolabama Ranch	Bighorn						.10																			.15				0.25
Lovell	....do																											T.		T
Manville	Niobrara					.20										.10	.20		T.							.10	.10			0.70
Moore	North Platte					.05	.01						T.			.08	.12		.02	.13	.06	.03				.02	.12	.08		0.72
Newcastle	S. Fork Cheyenne	T.			.40		.05								.15											T.	T.	.10		0.70
Pathfinder	North Platte					.11									.04	.04											.03			0.22
Phillips	....do																													
Powell	Bighorn																													0.00
Rawlins	North Platte	.50			.16	.02	.46								.23	.02	.05			.11	.01					T.	.52	.02	T.	2.10
Saratoga	....do	.10		T	.09		.01						T.		.17	T.	.11			T.							.01		.01	0.50
Sheridan	Tongue	.01				.03	T.	T.					.12		T.	T.				.01						.20	.03	T.		0.40
Shoshone Dam	Bighorn																									T.				T.
Soldiers Home	Powder					.10	.05													.40						.05	.30	.20		1.10
South Pass City	North Platte	.40		.13	T.	.25	.07							.14	.07	.13				.19	.02	.05				T.	.70	.04		2.19
Thermopolis	Bighorn					.13														.03						.04	.19	.06		0.45
Upton	S. Fork Cheyenne																													
Valley	Bighorn																			.09						.03	.01			0.13
Verona	Tongue				.10															.10							.40			0.60
Wiants Ranch	North Platte	.12		T.	.10		.06	.10					.02	.32			.14									T.	T.	.10		0.96
Woodrock	Tongue					.30	.29	.20					.09		.08											.30	.07			1.33
Worland	Bighorn					.12														T.							.03			0.15
Wyncote	North Platte																.12											T.	T.	0.12
Yellowstone Park	Yellowstone	.18	.32			T.	.19						.04	.27		.01				T.	T.					.08				1.09
Fountain	Madison		.31				.20							.30											.10					0.91
Gallatin	....do	T.	.48	.26			T.				T.	T.	T.	T.	.11											T.				0.85
Grand Canyon	Yellowstone	.18	.20			.04	.24						.02	.29		.08										.07				1.12
Lake Yellowstone	....do	.12	.26				.29						.05	.13												.11				0.96
Norris	....do	T.	.30				T.						T.	.30		T.			T.							T.				0.60
Riverside	Madison		.10				.30							1.50																1.90
Soda Butte	Yellowstone	.10		T.										T.	.30											.10				0.50
Sylvan Pass	Bighorn		T.	T.			T.				T.	T.	T.		T.	T.	T.	T.						T.		T.	T.		T.	T.
Thumb	Yellowstone		.60				.10	.20				.30	.31													T.				1.51
Tower Falls	....do	.10					.30							.60																1.00
Upper Geyser Basin	Madison		.05				.11							.60												.08				0.84
Montana.																														
Adams	Yellowstone	.37					.60																				.30			1.27
Adel	Missouri	.50	.10			T.	.05							.05					.05							1.80	.60	.10		3.25
Agricultural College	Gallatin		.05				.07						15	T.												.06				0.33
Augusta	Sun	.15	.05																.10						T.	.20	.20			0.70
Babb	Milk	.14	.65					.02									.25		.05						T.	.48	.28			1.87
Bald Butte	Missouri	.11	.07				.04							.08	T.	T.	.06		.04							.22	.11	.06		0.79
Big Timber	Yellowstone	.40																		.90						.16		.18		1.64
Big Timber Creek	....do	.20											T.							.06						.26	.10			0.62
Billings [1]	....do	.02						.02																			.04			0.08
Boulder Nursery	Jefferson																													
Bowen	....do		.01				.09						.03	.02		.10										.04				0.29
Bridger	Yellowstone						T.													T.						.01	T.			0.01
Broadview	....do																								.20					0.20
Busby	....do	.02					T.						T.							T.						.01	.03			0.06
Busteed	....do	.02					T.												.08	.02	T.					.09	T.	.15		0.36
Cabin Creek	Jefferson	.14													T.											.05	.10			0.29
Canyon Ferry	Missouri													.03					.01							.04				0.08
Cascade	....do	.11	.02			T.										T.			.04	.01	T.				T.	.70	.13	.07		1.08
Chessman Reservoir	....do	.13	.06				.05						.05	.08	T.		.03		.03	.06						.55	.15	.05		1.24
Chester	....do							T.											T.						T.	T.	T.			T.
Chinook	Milk		.27												T.											.10	.02			0.39
Chouteau	Missouri																													
Clearcreek	Milk	.80													T.										.05	.60				1.45
Clemons	Missouri	.09	.15				T.												.02			.03				.28	.06			0.63
Clydepark	Yellowstone	.11	T.				T.	.01					.06	T.					T.	.02	.08	T.				.01				0.29
Copper	Musselshell		T.	.16		T.	.07						.02	T.	.08				T.	.02	.03	.02				.07	T.			0.47
Crow Agency	Bighorn	.05					.10								T.					T.						.25	.05			0.45
Culbertson	Missouri	.80			.20																				T.					1.00
Cummings	Bighorn																													
Cut Bank	Marias	.13	.11																T.	T.					T.	.20				0.44
Decker	Tongue																													
Denton	Missouri	.10	T.				T.		.07											.02					T.	.15	.05	.02		0.41
Dirty Creek	Musselshell	.53	T.	.13											T.	T.			.05							.01	T.	T.		0.72
Dry Creek	Missouri	.16	.21	.07			.01						.30	.28		T.			.16	.12						.16				1.47
Dry Wolf Camp	....do		.05	.07		T.	.01						T.	T.	.02				.01						T.	.41				0.57
East Gallatin River	Gallatin	.09	.10	.05		.12							.29						.03		.01					.12				0.81
Ekalaka	Little Missouri																									T.		T.		T.
Elkhorn	Jefferson		.06				.07	T.					T.	.07		T.	T.	T.	.06							T.	T.	T.		0.26

TABLE 2.—*Daily precipitation for February, 1911. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Montana—Continued.																														
Evans	Missouri													T.	T.					.10					1.20		.30	.10		1.70
Fallon	Yellowstone						T.																			T.	.05			0.05
Fish Creek	Jefferson	.29	.10										.02	.05			.75	T.		.11								.54		1.86
Flathead Creek	Yellowstone	.21	.06				.10	.06					.31	.06	.05				T.	T.	.04					.19				1.08
Forsyth	do						T.																			T.				T.
Fort Benton	Missouri	.30	.20																							.40	.10			1.00
Fort Shaw	Sun	.06	.14															T.	T.							.20	.12			0.52
Foster	Bighorn						.03													T.							.05			0.08
Garneill	Musselshell																													
Glasgow	Milk	.56	T.				.04																							0.60
Glendive	Yellowstone																				T.					.20	T.			
Goldbutte	Marias	.10	.03					.01							T.				.01						.05	.05	.05			0.30
Graham	Powder							T.																		.03	.02	.01		0.06
Grayling	Madison		.23				.19				T.			.18												T.				0.60
Great Falls	Missouri	.18	.12				T.												.03	.05	T.				T.	.54	.12	T.		1.04
Half Moon Pass	Musselshell	.40	T.	.01			.15		.01		T.	T.				T.			.01						T.	.02	T.			0.60
Half Way House	Missouri	.64	.17	.29			.19	.07													.29	.14				.33	.26			2.38
Harlowton	Musselshell	T.																	T.	.15	.10						.10	.10	T.	0.45
Havre	Milk	.17	.01												.02										.32	.08	T.			0.60
Helena	Missouri	T.	.07			.02	.02							.06	T.	T.	T.		.03	T.					.02	T.	T.			0.22
Highwood	do	.30	T.						.03																.04	.60	.03			1.00
Huntley	Yellowstone	.20					.18																					.03		0.50
Jones Canyon	Gallatin	.05				.20	.06					.61		.10					.18	.05						.71	.18			2.14
Jordan	Missouri																								.40					0.40
Lewistown	do	.09		.11					.08																T.	.18	T.			0.46
Livingston	Yellowstone												.05						T.		T.					.05				0.10
Lonetree	Missouri	.60							.10											T.						.61	.03			1.34
Lost Horse Creek	Musselshell	.15						.20						.05	.10				.10	.05						.42				1.07
Malta	Milk	.50	T.																						T.	.06	T.			0.56
Medicine Lake	Missouri	1.20	T.	T.			.40								T.	T.										.10				1.70
Milstone	Musselshell	.28																									.20			0.48
Mildred	Yellowstone	.01																								.01				0.02
Miles City	do						.02						.12																	0.14
Norris	Madison	.10					.07						.05													.21	.13			0.56
Rye	Yellowstone						.11							.03		.01				.08	T.					.34	.43	.05		1.05
Olsen Creek	Jefferson	.09	.12				.08						.03	.05												.06	.04			0.47
Pipestone Pass	do		.21				.06					.09		.06					.02	.06						.11	.02			0.63
Poplar	Missouri	.16	T.				.19								T.															0.35
Raymond	do	.15																	T.						.03	.02				0.20
Red Lodge	Yellowstone	.10					.10							T.		T.				.12						.48	.40	.02		1.22
Renova	Jefferson	.21	.02				T.						T.	T.					T.	.01						.09				0.33
Ryegate	Musselshell	.50																												0.50
Seville	Marias	.08																	.06						.08	.16	.09			0.47
Sidney	Yellowstone	.30	T.	T.			.12						T.													.18				0.60
Spokane Ranch	Missouri		.04				.11								T.			T.							.07					0.22
Springbrook	Yellowstone	1.00					.30								T.											.40	.20			1.90
Stearns	Missouri	.20																		.15							.46			0.81
Three Forks	Madison		.03											12												.08				0.23
Tokna	Yellowstone	.48	.02									.30																		0.80
Townsend	Missouri																													
Trail Creek	Yellowstone	.18	.05				.20	.10					.20		.05				.01	.01	.02					.08	.01	.05		0.96
Utica	Missouri				.12				.05											.04							.30			0.51
Valentine	Musselshell	.17	T.				.02		T.																					0.19
Virginia City	Jefferson	.18	.12				.15						.05		T.											T.	T.			0.50
Wall Rock Mountain	Missouri	.06	T.	T.		T.	T.	.05					.08	T.	T.					.03						.11				0.33
Warm Springs Creek	Madison	.01	.04				.04						.20	.01	.01	.04			.02	.01						.19				0.57
Wolf Creek	Missouri	.35	.04				T.							T.			T.		.04	.09						.90	.60			2.02
Wolf Point	do																													
Woodville	Jefferson	.04	.05				.03						.04	.07		.03										.16				0.42
North Dakota.																														
Aplin	Knife	.30																												0.30
Beach	Little Missouri	.66																								.12				0.78
Berthold Agency	Missouri	.50					.07								T.		T.				T.					T.				0.57
Bismarck	do	.20				T.	.05								.15	T.	.02									T.	T.			0.42
Broncho	Knife	.60	.09																							T.	.21			0.90
Buford	Missouri	.30	T.				.30																			T.				0.60
Dickinson	Heart		.55																							T.				0.55
Edgely	James	T.	.17			.02				.02						.10	.04													0.35
Epping	Missouri	.35					.10	.04								T.														0.49
Fullerton	James	.35		T.		.08	T.	.03								.35														0.81
Garrison	Missouri	.60						.05																						0.65
Haley	Grand	.02															T.				T.					T.		T.		0.02
Hettinger	Cannon Ball	.01															T.								T.					0.01
Howard	Missouri	1.40					.30								.07															1.77
Jamestown	James			.10			.05	.30							.30		.05													0.80
Lamoine	Missouri	T.	.30				.40		T.							.40		T.												1.10
McHenry	James	T.				.03										.50					.10			.05		.05				0.73
Manfred	Sheyenne	.50				T.		.30								.30														1.10
Marmarth	Little Missouri	.10																								.02				0.12
Marstonmoor	James																													
Medora	Little Missouri	.48							T.																	.06				0.54
Melville	James	.90				T.		1.00								.80														2.70
Mott	Cannon Ball	.20				T.													T.							.10				0.30
Napoleon	Missouri																													
New England	Cannon Ball	.30	.10																											0.40
New Rockford	James																													
New Salem	Heart	.60				T.	T.									.03	.03			T.						T.				0.66
Orange	Cannon Ball	T.														.30	T.				.05					T.				0.35
Schafer	Little Missouri																													
Steele	Missouri	T.				.20	T.	.40								.25	.05													0.90
Washburn	do	.40														T.	T.													0.40
Williston	do	.18	.02				.13																			.01				0.34
South Dakota.																														
Aberdeen ‖	James	.02				T.	1.00			T.						T.	.35													1.37
Academy	Missouri					.50										T.	.20	.10		T.										0.80
Alexandria	James					.30											.10													0.40
Ardmore ‖	Cheyenne					.30																						.10		0.40
Armour	Missouri																													
Bellefourche	Cheyenne					T.		T.							T.	.05										T.	T.			0.05
Brookings	Big Sioux						.45												.08											0.53
Camp Crook	Little Missouri	T.				T.															T.					.05		T.	.02	0.07
Canton	Big Sioux					.41											.31													0.72
Cascade Springs	Cheyenne					.12										10	.13		T.	T.							T.	T.		0.35
Castlewood	Big Sioux	T.				.04							T.			.03	.03	.01												0.11

TABLE 2.—*Daily precipitation for February, 1911. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
South Dakota—Contd.																														
Centerville	Missouri					.90											.34	.03												1.27
Chamberlain	....do																													
Clark	James	.25				.20										.20	.10													0.75
Cottonwood	Missouri	T.				.20										T.	.40									T.				0.60
Crow Creek	....do					.48										T.	.48													0.96
Daviston	Grand													T.			.15	T.									.30			0.45
Deadwood	Cheyenne					T.		T.							.10	.45										.85	.45			1.85
Deerfield	....do	T.		T.		.17	.02								.08	.19										.02	.10	.02		0.60
De Smet	James	T.				.40										T.	.30													0.70
Dowling	Cheyenne	T.				.10										.20	T.									.05				0.35
Dumont	....do					.15		.31	.05						.20	.44										.88	1.17			3.20
Eales	Missouri	.01				.25										.38	.07			T.	T.						T.			0.71
Elk Mountain	Cheyenne				.10	.20										.10	.10											T.		0.50
Elk Point	Missouri					.49	.16										T.	.40												1.05
Ellingson	Grand																													
Englewood	Cheyenne							.50	.05							.60	.15									1.50	.50			3.30
Eureka	Missouri	.03				.20		T.								.50	T.													0.73
Fairfax	....do					.50										T.	.20													0.70
Faulkton	James	T.				.32										.06	T.													0.38
Flandreau	Big Sioux					.40											.05	.15												0.60
Forestburg	James																													
Fort Meade	Cheyenne	T.	T.			T.									T.	.20				T.	T.					.10	.15			0.45
Frederick	James					.45	.02									.03														0.50
Gannvalley	Missouri					.60											.30													0.90
Greenmont	Cheyenne	T.				T.		.11	T.						.42											.75	.50	.06		1.84
Greenwood	Missouri					.60											.20													0.80
Gardy Ranger Station	Cheyenne							.80								.03										.02	.01			0.86
Harveys Ranch	....do	T.				.08	T.	.12	.04						.08	.28										.44				1.04
Hermosa	....do					.13										.10											.06	.09		0.38
Highmore	Missouri					.29										.06	.04	T.												0.39
Hill City	Cheyenne					.32										.22											.30			0.84
Hopewell	....do	T.				.25										.12	.15			T.						T.				0.52
Howard	James	T.				.20											.10										T.			0.30
Howell	....do	.01				.51										.40	.16													1.08
Huron	....do	T.		T.		.61										.01	.12									T.	T.			0.74
Ipswich	....do					.50										.30														0.80
Kadoka	White	.01				T.	.10									T.	.10										.01			0.22
Kennebec	Missouri					.40											.10													0.50
Kidder	James	.05	T.	T.		.11										.10														0.26
Kimball	Missouri																													
La Delle	James																													
Lead	Cheyenne	.01				.01		.06	T.						.25											.25	.33	.02		0.93
Lemmon	Grand					T.																				T.				T.
Marion	Missouri					1.02	.06										.20	T.												1.28
Marston	....do					.30										.10	.10													1.00
Mellette	James	T.				.53										.10	.04													0.67
Menno	....do					.26											.23													0.49
Milbank	Minnesota						.38											.07													0.45
Mitchell	James				*	.60											.10													0.70
Mobridge	Missouri	T.													T.	.30	T.													0.30
Murdo	White					.20	.25									.10	.20													0.75
Oelrichs	Cheyenne					.10									.10		.20													0.70
Orman	....do														.01											.01				0.02
Ottumwa	Missouri	T.				.40											.30									T.				0.70
Pierre	....do	T.				.36										.07	.12				T.									0.55
Plankinton	James					.55										T.	.30													0.85
Pollock	Missouri	.01			.05			.05								.25	.03													0.39
Rapid City	Cheyenne	T.				.08	T.								.02	.04	T.			T.	T.					.18	.10	.01		0.43
Redfield	James	T.				T.	.70									.01		.01												0.72
Rochford	Cheyenne					.08	T.		T.						.18	T.										.05	.11			0.42
Rosebud	White					.20											.15										.10			0.45
Rosebud Agency	....do																													
Roslyn	Big Sioux	.02				.20										.02	.01													0.25
Savoy	Cheyenne																													
Selby	Missouri					.12	T.								.50															0.62
Sioux Falls	Big Sioux					1.10		T.									.12	T.												1.22
Spearfish	Cheyenne	T.				T.									.13												.15			0.28
Stephan	Missouri	T.				.50	T.		T.							.04	.05	T.		T.	T.									0.59
Tama	Cheyenne																													
Timber Lake	Grand																													
Tyndall	Missouri					.65											.26													0.91
Vale	Cheyenne	T.				.07									T.	.14				T.	T.					.02	T.	T.		0.23
Vermilion	Missouri					.84											.35	.11												1.30
Waters Ranch	Cheyenne	T.				.02		.03							.13	.12										.23		.01		0.54
Watertown	Big Sioux	T.				.15										T.	.16													0.31
Wentworth	....do					.31											.21													0.52
Wessington Springs	James					.62										.01	.30													0.93
White Lake	Missouri				.40												.05													0.45
Winner	White																													
Yankton	Missouri					1.02											.41													1.43
Minnesota.																														
Pipestone	Big Sioux	T.				.60											.15													0.75
Colorado.																														
Akron	Republican																.13		.05									.17		0.35
Albion Lake	South Platte																													
Alma	....do																1.20	.11								.50				1.81
Arriba (near)	Republican					.15									.20		.23		.33	.22							.14	.21	.05	1.53
Auldhurst	South Platte				T.	.05											.14	.14	.28	.12		T.					.61	.08		1.42
Boulder	....do															T.	.34		.30	.24		.03				T.	.60	.05		1.56
Burlington	Republican					.20								T.					.08	.06								.12		0.46
Cassells	South Platte				T.	.03										*	*	.97	*	.10	T.					*	.30	*	.10	1.50
Castle Rock	....do																.21		.15	.09	T.	T.				T.	.30	T.	T.	0.75
Cheesman	....do				T.	.10											.13	.45	.10	.10	.05	T.					.33	T.		1.26
Cheyenne Wells	Smoky Hill														.14		.25	.02	.50								T.	.25	.18	1.34
Cope	Republican				26										.16		.15									.20	.10	.20	.06	1.13
Corona	South Platte	.32		.26		.42		.36						T.	.24	T.	.39	T.		.52							.75			3.26
Denver	....do				T.												.08	.05	T.	.15	.05	.01	T.			.20	.14	T.	T.	0.68
Edgewater	....do															*	.22		*	.19							*	.59		1.00
Estes Park Hatchery	....do	T.		T.				.05						T.	T.	T.	T.	T.	.05	.05						T.	.21	.05		0.51
Fort Collins	....do			T.												.01	.15		.14	.16	.06	.02				T.	.42	.54	.02	1.52
Fort Lupton	....do																													
Fort Morgan	....do																T.	.03	T.	.07							.05			0.15
Frances	....do																													

TABLE 2.—*Daily precipitation for February, 1911. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Colorado—Continued.																														
Frys Ranch	South Platte	.15		.02		.04		.05						T.		T.	.09		T.	.04			.05			T.	.30	.11		0.85
Georgetown	do		.06		T.								T.		T.	.35	.17		.08				T.			.13	.03			0.82
Greeley	do															.17			*	.24							.10	.15	.22	0.88
Grover	do					T.										T.	.18			T.	.09						.01	.06		0.34
Harts	do			.01	.06	.04										.05	.26		.15	T.	T.						.02	.01		0.60
Hawtorne	do															*	.33	.03	.14	.20	T.					*	.65	.03		1.38
Holyoke (near)	do																	.11												0.11
Idaho Springs	do			.07												*	.32	.05		.06						*	.15			0.65
Keota	do																													
Laporte	do		T.														.15		.05	.40							.85	.61	.07	2.13
Leroy (near)	do																.08			.03							T.	.13		0.24
Longmont	do															.15	T.		.29	T.	T.					.17	.10	T.		0.71
Longs Peak (near)	do																													
Lula Pass	do	.47				.45							.14								.13	.22					.10	.23		1.74
Moraine	do	.10				T.		.05									.20	T.	.05	.10	T.		T.			T.	.28	.05		0.83
Platte Canon	do																.01		.13	.12	T.					*	.52			0.78
St. Cloud	do	.12						.05					T.	T.		T.	T.		.15	.45	T.					T.	.64	.18		1.59
Sedgwick	do																.10													0.10
Sill Mine	do	.25		.27	T.	.45	T.	T.					T.	T.	T.	.10	.65	.07	.15	T.					T.	.10	.35	.30	.20	2.89
Spicer (near)	North Platte	.08				.14						T.		.12		T.	.37			.14								.32		1.17
Sterling	South Platte																.01			.01								.14		0.16
Waterdale	do															*	.25		*	*	.51	T.				*	*	1.03		1.79
Wray	Republican					.03								.05			.27		.08									.25	.09	1.77
Yuma	do																.11		T.	.05								.05		0.21
Nebraska.																														
Ainsworth	Niobrara	.23				.46										.24											T.			0.93
Albion	Loup					.70											.54	T.								T.		T.		1.24
Alliance	North Platte					T.											.08												.15	0.08
Alma	Republican					.02											.26	.22												0.65
Anoka	Niobrara					1.40											.32													1.72
Ashland	Platte					.56							.45	.22			.62	.45										T.		2.30
Atkinson	Elkhorn																													
Auburn	Little Nemaha					.25								.09	1.01		.75	1.88	.02	T.						T.				4.00
Beatrice	Blue					.10								.10	.37		.67	1.29												2.53
Beaver City	Republican					.03											.32	.37											.11	0.83
Bellevue	Missouri					.89	.01							.18	.44		.87	.62												3.01
Blair	do					.81	.09			.20					.25		.22			T.	T.									1.57
Bloomfield	do					1.80											.90													2.70
Bridgeport	North Platte					T.											T.											T.		T.
Broken Bow	Loup					.11	.02												.20								T.			0.33
Burge	Niobrara																.48													0.48
Callaway	Loup																.65	.10												0.75
Cambridge	Republican					T.								T.		T.	.25	.31	T.										.10	0.66
Canton (near)	North Platte					T.											.20	T.											.15	0.35
Columbus	Loup					.54												1.24												1.78
Creighton	Missouri					1.19											.70													1.89
Crete	Blue					.17								.35	.22		.80	.63												2.17
Culbertson	Republican					T.									T.		.30												.03	0.38
Curtis	do					.30											.44	.26											.05	1.09
David City	Blue					1.03								.09			.15	.32										T.		1.59
Dawson	Great Nemaha																													
Elsie	Republican																	.50										.10		0.50
Ewing	Elkhorn					.90											.05													0.95
Fairbury	Blue				.11	T.								.49		.26	1.21	.41		T.	T.							T.	.03	2.51
Fairmont	do					T.									1.09		.12	.45	.23											1.89
Fort Robinson	Niobrara					.15	.10										.80	.10	.40		.10							.10		1.75
Franklin	Republican					T.											.21	.64											.12	0.97
Fremont	Platte					.55									.50		.23	.20												1.48
Fullerton	Loup					.71											.13													0.84
Geneva	Blue					.33								.44	.04	T.	.45	.47	T.		T.									1.73
Genoa	Loup					1.00							T.	T.			.33	.13												1.46
Gordon	Niobrara																	.03												0.03
Gosper	Republican					.04							T.				.34	.21											.04	0.63
Gothenburg	Platte					.02											.20	.12												0.34
Grand Island	do					.06											.08	.36												0.50
Grant	Republican					.02											.40										T.			0.42
Greeley	Loup					.70											.38	.20												1.28
Halsey	do				.23											T.	.37	.02									T.			0.62
Hartington	Missouri					1.40											.40	T.												1.80
Harvard	Blue					.24								.03			.18	.37												0.82
Hastings	do					T.								T.				.50	.10										.10	0.60
Hayes Center	Republican					.20											.50									T.	T.	.10		0.80
Hay Springs	Niobrara					.10											.20													0.40
Hebron	Blue					.05								.40	.17		.55	.77	T.										.02	1.96
Hemingford	Niobrara					.10	.02										.07	.04									.03		.02	0.28
Hillside	North Platte					.03											.21										T.	T.		0.24
Holdrege	Republican					.10											T.	.78										T.	T.	0.88
Hooper	Elkhorn					.55							.12			.18	.30		T.											1.15
Imperial	Republican					T.											.32	T.	T.								T.	.05	T.	0.37
Kearney	Platte					.10							T.				.10	.20												0.40
Kimball	South Platte				.01													.02								.05	.30	.10		0.48
Kirkwood	Niobrara					.70										T.	.30													1.00
Kowanda	North Platte																.04													0.04
Lexington	Platte					.02											.19	.30												0.51
Lincoln	do				.04	.22								.62			.73	.40		T.	T.							T.		2.01
Lodgepole	South Platte																T.											T.		T.
Loup	Loup					.20											.25	.20												0.65
Loyal	do																												.14	0.47
McCook	Republican																.25	.08												1.05
Madison	Elkhorn					.70											.25	.10												0.57
Marquette	Platte					.25											.26	.06		T.	T.						T.			0.60
Mason City	Loup																.60												T.	0.42
Minden	Blue					.05							T.			T.	.17	.20												0.11
Mitchell	North Platte				T.	T.											.06		T.								T.	T.	.05	3.30
Nebraska City	Missouri					.20								.60		.85	1.50	.15												1.07
Norfolk	Elkhorn					.72											.33	.02			T.									1.52
North Loup	Loup					.71											.75	.06									T.	T.		0.39
North Platte	Platte					.08											.31			T.										1.56
Oakdale	Elkhorn				T.	1.20											.36				T.									2.13
Omaha	Missouri					.81							T.	.45	.05		.48	.34		T.	T.							T.		1.14
Ord	Loup					.62												.42	.10											0.48
Palisade	Republican					.02												.46										T.	T.	3.83
Pawnee City	Great Nemaha					.23								*	.75		1.50	1.30								.05				0.40
Paxton	South Platte					.05											.25	.05									.05			

TABLE 2.—*Daily precipitation for February, 1911. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Nebraska—Continued.																														
Plymouth	Blue					.05								.40			.73	.83												2.01
Purdum	Loup					.30										.03	.30													0.63
Ravenna	do					.22											.28	.27	T.											0.77
Red Cloud	Republican					.03								.15			.35	.37		T.							T.		.07	0.97
St. Libory	Loup				.40												.30	.20												0.90
St. Paul	do					.40											.34	.22												0.96
Santee	Missouri																													
Sargent	Loup					.10																								0.10
Schuyler	Platte					1.55								T.			.14	.16										T.		1.85
Scottsbluff	North Platte					.07											.08		T.								T.	.05	T.	0.20
Seward	Blue					.54								.35		.35	.40	.30												1.94
Sheridan	Loup					.45	.02										.33													0.80
Sidney	South Platte																.05			T.							T.	.10	.10	0.25
Springview	Niobrara					.60										T.	.40													1.00
Stanton	Elkhorn					1.00											.25													1.25
Stratton	Republican																			.30	.45									0.75
Superior	do														.65		.50	.40	.15											1.70
Syracuse	Little Nemaha					.30								.47			1.13	1.15		T.						T.				3.05
Tecumseh	Great Nemaha																													
Tekamah	Missouri					1.00						T.	.20	.25		.20	.22													1.87
Tobias	Blue					T.								.42		45	.70											T.	T.	1.57
Valentine	Niobrara				.08	.40											.23			T.	T.						T.			0.71
Wahoo	Platte					.40									.53	.35	.32	.30												1.90
Wakefield	Elkhorn					1.40											.47													1.87
Walthill	Missouri					.10	.02						.10					.40	.03											0.65
Watertown	Platte					.03											.35													0.38
Wauneta	Republican															.40	.20										10			0.70
Weeping Water	Missouri					.50	.04							.20	.45		.80	.84	T.	T.	T.									2.83
Westpoint	Elkhorn					1.10											.38	T.												1.48
Wisner	do					.75											.45	.05												1.25
York	Blue					.38							T.	.07			.21	.33										T.		0.99
Iowa.																														
Afton	Missouri					.60									T.	.92	.69	2.00	.08								23			4.52
Allerton	Chariton					.60								.01	1.30		1.45	1.12	.25	.05						T.	.18			4.96
Alton	Floyd					.60											.70	T.												1.30
Atlantic	Nishnabotna					.60							T.	.44	.64		.42	.59			T.					T.				2.69
Audubon	do					1.10	.10							.10	.41		.52	.38												2.61
Bedford	Missouri					.72								.17	.55		.67	1.91	.56							.10	.12			4.80
Centerville	Chariton					.40								1.54			.64	1.00		.10							T.			3.68
Chariton	do					.13	.30								1.35		1.10	1.55	T.	.10						.18				4.71
Clarinda‖	Nodaway					.22	.33								.88		.45	1.00	1.10	T.							.08			4.06
Corning	do					.40								.30	.78		.87	2.13		T.										4.48
Corydon	Chariton					.53	T.							.14	1.08		*	2.82		.02							.10			4.69
Council Bluffs	Missouri					.45							T.	.36	.35		.75	.55				T.								2.46
Creston‖	do					.01	1.13								.92		.20	1.63	.65		T.						.16			4.70
Cumberland	Nodaway					.60									.80	.15	.67	.42												2.64
Denison	Missouri					.65	.10							.25	.40		T.	.25												1.65
Elliott	Nishnabotna					.30								.36	1.56		.70	1.00												3.92
Greenfield	Nodaway					1.05								.22	.68		.48	1.15	T.	T.						T.				3.58
Harlan	Nishnabotna					1.00	.30							.26	.28		.54	.39		T.	T.									2.77
Inwood	Big Sioux					.50	.20										.22	.08												1.00
Lamoni	Missouri					.72	.02							.49	.15		1.15	1.05		.02						.03	.05			3.68
Larrabee	Little Sioux					.55											.55													1.10
Le Mars	Floyd					.58	T.										.39													0.97
Lenox	Missouri					.20								.15	.45		.70	1.51		T.						.04				3.05
Leon	do					.60								.25	.90		1.16	1.18	.26	.10						.19				4.64
Little Sioux	Little Sioux					.70								.11	.20		.07	.30												1.38
Logan	Missouri					1.17							T.	.16	.06		.05	.17			T.									1.61
Mount Ayr	do					.69								.43	.47		.85	1.51	.07	.03						.20				4.25
Murray	do					.95								.27	.43	*	.88	1.60	.06	T.	T.					.05	.07			4.31
Odebolt	do					.80							.32				.13	.12												1.37
Onawa	do					.70								.05			.25	.20												1.20
Pacific Junction	do					.64							T.	.25	.27		.95	.83		T.	T.						T.			2.94
Rock Rapids	Big Sioux					.10											.40													0.50
Sheldon	Floyd					.75							T.	T.			.50	.05												1.30
Sibley‖	Big Sioux					.05	.50											.54												1.09
Sioux Center	Floyd					.60											.42													1.02
Sioux City	Missouri			T.		1.10		.02					T.				.46	T.			T.									1.58
Spencer	Little Sioux																													
Thurman	Missouri					.41	T.							.22	.50		1.24	1.34	T.	T.	T.					T.				3.71
Washta	Little Sioux					1.00											.48	T.												1.48
Woodburn	Chariton					.50	.01							.09	1.05		.90	1.82	.18	.05	T.					.07	.17			4.84
Kansas.																														
Abilene‖	Smoky Hill																													
Agricultural College	Kansas					.05								.53	¶.60		1.41	1.91	.80	.10						.01	.17	.10	.10	5.78
Alton	Solomon			T.		T.								.31	T.		.22	.71	T.	T.								.10	.10	1.30
Atchison	Missouri					.20								.50	.50		1.20	1.40	.50	.20						.30	.10		.10	5.00
Baker	do					.27								.78	.72		1.06	.62	.95	T.								.12		4.52
Beloit‖	Solomon																													
Blakeman	Republican																.30	.02										.01	.11	0.44
Blue Rapids‖	Blue																													
Centralia	do					.18								.70	.90		1.30	1.75	.20	T.	.20	T.				.13		.10		5.46
Chapman	Smoky Hill					T.								.27	1.02		1.32	1.80	.80							T.			15	5.36
Clay Center	Republican					T.								.30	1.25		1.00		2.03	.50						T.		.12	.10	5.30
Colby	do					T.								.05		.29	.05		.03									T.	.14	0.56
Concordia	do					T.								.84		.04	1.14	1.06	T.							T.		.05	.06	3.19
Densmore	Solomon													T.			.26	.56											.14	0.96
Dresden	Republican					T.								T.			.12	.45		T.								T.	.50	1.07
Ellsworth	Smoky Hill				T.									.60	.24		.55	1.79	1.02									.25	.15	4.60
Enterprise	do													.29	.74		1.14	1.49	.80	.02						T.	.02	.02	.13	4.65
Eskridge	Kansas					.02								.45	.12		1.15	1.61	1.55	.10						.18			.13	5.31
Farnsworth	Smoky Hill													.25			.26	.55	.26	.21								.02	.23	1.78
Fort Scott	Marmaton					.15							.04	.32	.05		.50	T.	3.30	.45						.35			1.25	6.41
Frankfort	Blue					.20								.30	1.20		1.25	2.00	.45	T.						T.	.10	.10	.05	5.65
Garnett	Osage					.10								.90	.22		.77	.32	1.72	.40						.26	.22		.92	5.83
Goodland	Smoky Hill												T.	.24		.20	.34	.20	.20							T.		.50	1.68
Gove	Blue					.01								.06			*	.75	.20									.30	1.32
Hanover	do					.05								.29	.48		.84	1.90	T.							T.		T.	T.	3.56
Harrison	Republican					.02								.46			.43	.65											.05	1.61
Hays	Smoky Hill				T.	.01							T.	.40			.18	1.02	.19									T.	.32	2.12
Hill City	Solomon																													
Horton	Kansas					.20								.50	.42		1.50	1.55	.33							.08	.07		.10	4.75
Hoxie	Solomon																													

TABLE 2.—*Daily precipitation for February, 1911. District No. 6*—Continued.

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Kansas—Continued.																													.05	2.86
Jewell	Republican													1.10	.24		.28	1.19											.04	5.46
Lawrence	Kansas					.19								1.23	.02	.01	1.00	1.49	.95	.08						.38		.07	.10	1.75
Lebanon	Solomon					T.								.33			.87	.30	.15											
Lindsborg[1]	Smoky Hill																												.20	1.83
Mankato	Republican													.51	.10		.31	.71								T.		.20	.08	5.02
Minneapolis	Solomon				T.									1.25			.67	2.30	.52							.20	.16		.60	3.95
Moran	Marmaton					.13						T.		.35	.20		.19	.07	1.75	.30									.30	2.55
Natoma	Saline													.25			.50	.70	.80										.07	0.81
Norton	Republican					.07											.27	.40	T.										.26	0.90
Oberlin	do					.03								T.			.30	.26	.05							.01		.21	T.	3.42
Oketo	Blue					.05								.58			.55	2.02	T.	T.						.47			.19	4.85
Olathe	Kansas					.24						.01		1.33			.42	.90	1.06	.23						.20	T.		.28	4.52
Osage City	Osage													.70	.03		1.09	1.23	.90	.09						.20			.35	4.81
Ottawa	do	T.				.23								1.00	.40		.12	1.00	1.26	.25									.11	0.82
Phillipsburg	Solomon					T.								.03			.13	.55	T.										.90	5.85
Pleasanton	Osage					.28	.13					.02		.05	.43		.56	.05	2.38	.70						.15	.20		.33	2.58
Russell	Smoky Hill													.55			.16	1.32	.22									T.	.50	1.32
Russell Springs	do																.50	.10		.22									.50	1.32
St. Francis	Republican																.30	.06		T.								.02	.07	0.45
Salina	Smoky Hill					T.								.41	.60		1.02	1.59	.84	.01								.10	.11	4.68
Scott	White Woman				T.	T.								.14	.04		.25	.39	.19	.38								T.	.68	2.07
Smith Center	Solomon													.18			.26	.66											.05	1.15
Topeka	Kansas					.05								.88	.01		1.75	1.38	1.17	T.	T.					.23		T.	.12	5.59
Valley Falls	do					.18							T.	.81	.15		.72	1.80	.82	.02						.14	.02		.02	4.68
Vinland	do					.30						T.		1.60		*	*	1.70	1.25	.53						.36		.10	.05	5.89
Wakeeney	Smoky Hill				T.									.18			.18	.76	T.	.02									.14	1.28
Wallace	do					.08								.14			.33	.04	T.	.05								.01	.16	0.81
Wamego	Kansas				T.	.05								T.	.64		1.83	2.50	1.00	T.						.10		.10	.07	6.29
Missouri.																														
Amoret	Osage					T.						T.		T.	.36		.33	T.	2.01	.30						T.	.30		.80	4.10
Appleton City	do					.25									.35				1.50	.35						.13	.23		.88	3.69
Arlington[1]	Gasconade					.10	.60		T.			.10			.40		.55	T.	.60	1.60	.60	T.							.20	4.75
Arthur	Osage					.33						.12		T.			.25		3.17	.66						.15	.15		1.00	5.83
Avalon	Grand					.65									.60		.53	1.50	.60	.60						.08	.18			4.74
Bagnell[1]	Osage				.01	.05						.01			.50		1.10	.12	.80	1.60	.90						.40		.80	6.29
Bethany	Grand					.67								.30	1.33		.88	1.42	.32	T.						.14				5.06
Bolivar	Osage					.09	.16					.08			.40		.06		.91	.91						.01			.65	3.27
Boonville[1]	Missouri					T.	.38								.24		.01	T.	.78	.86	.38						.40		.12	3.17
Brunswick[1]	Grand					.21							.10		.34		.05	.49	.71	1.08	.35						.55		.20	4.08
Clinton	Osage																									.14		T.	.17	3.04
Columbia	Missouri					.33						T.		.15	.04		.02	.18	1.67	.34	T.					T.				3.50
Conception	do					.46									1.03		1.03	.89	.09							T.	.36		1.40	5.97
Eldorado Springs	Osage					T.	.28								.56		.47		2.30	.60										
Fairport	Grand																									.55			.06	3.27
Fayette	Missouri					.33								.26			.17		1.00	.90						.02	.10		.20	3.38
Fulton	do					*	.25						T.		.50		.06		*	2.25							.22		.02	2.01
Glasgow[1]	do				.01	.22							T.		.02			.26	.52	.48	.26	T.				.34				4.16
Grant City	Grand					.50								.30	.70		.87	1.28	.17	T.										
Harrisonville[1]	Osage					.25	.40					T.		T.	.80		1.10	1.00	1.10	.80	.20						.36	.05	.10	6.11
Hazelhurst	Grand					.20						.13	T.	.04	2.50		.88	2.20	.77	.15						.50		.05		7.42
Hermann[1]	Missouri						.14						T.		.22		.12	.36	.46	.90	.40	T.					.08		.14	2.82
Houston	Gasconade						T.					T.			.25		.50		30	1.75									.50	3.30
Jefferson City[1]	Missouri						.13						T.		.32		.23	.25	.85	1.25	.35						.10		.10	3.58
Kansas City	do				.01	.23								1.45		.10	1.50	1.24	1.20	.33					.40	.01	.05	.24	6.76
Kidder[1]	Grand					.41								2.10			.20	1.66	1.02	.07						.24		.06		5.76
Lamonte	Missouri					.32						T.		T.	.20		.25	.03	1.53							.88	.12		.40	3.83
Lebanon	Osage					.12									.55		.04		.80	1.45									1.42	4.38
Lexington[1]	Missouri					.04	.19								.71		.29	.71	1.16	.84	.20						.42		.05	4.61
Liberty	do					.37								1.37			.57	2.30	1.44	.28						.24	.20		T.	6.77
Lockwood	Osage						.48							.55		T.			1.42	.91	T.	T.						T.	1.27	4.63
Marshall	Missouri					.41						T.		T.	.20		.39	.02	1.35	.68										3.05
Marshfield	Osage																													
Maryville[1]	Missouri														1.03		.41	1.61	.55											4.22
Mount Vernon	Osage					.35	.27					T.		.43			.09		.89	1.15						T.			.86	3.42
Nevada	do					T.						T.		T.	.29		.49		2.92	.60	T.	T.	T.			.08	.22		.07	4.79
Oregon	Missouri					.12									1.05			T.	2.67	.03						.17		.08		4.36
Osceola[1]	Osage					.36																								
Pattonsburg[1]	Grand				.19	.28								1.40		.15	2.13	.72	.24	.20							.06		.59	5.31
Rolla	Gasconade					.03	.12					.03			.35		.09		.80	1.40	T.								.50	3.47
St. Charles	Missouri					.18						T.					.72		.91	.74	.09					T.			.50	3.14
St. Joseph	do	T.			.01	.40						T.		1.02	.01		2.34	1.38	.49	.04	T.					.39		T.		6.19
St. Louis	Mississippi			T.		.56		T.				T.		.20			.30		.70	.94	T.	T.				T.			.11	T.	3.02
Sublett	Chariton					2.00									T.		.25	1.00	.02	.20									.32	3.02
Trenton[1]	Grand					.20	.40						T.	2.86	T.	.30	1.89	.77	.15	.14	T.					.40				3.87
Unionville	Chariton					T.	1.20								2.00	.35		2.45	.70	T.	.40					.34	T.	.09	.10	7.24
Warrensburg	Missouri					.41	T.						T.	T.	.27		.03	.30	.60	1.10	.40						.35			7.45
Warrenton[1]	do						.26								.44		.54	T.	1.24	.81	T.					.15	.25		.34	4.22
Warsaw	Osage					.11						.02			.39		.34		2.17	.85	T.						.08		.15	3.19
Wheatland	do														.50				2.00	.30						.18			.68	4.74
																													.90	3.70

TABLE 3.—*Maximum and minimum temperatures at selected stations for February, 1911. District No. 6, Missouri Valley.*

Date.	Wyoming.																Montana.									
	Basin.		Cheyenne.		Fort Laramie.		Lander.		Newcastle.		Pathfinder.		Sheridan.		Yellowstone Park.		Billings.§§		Dillon.		Havre.		Helena.		Lewistown.		Malta.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	36	10	48	25	46	25	46	22	46	16	48	31	16	2	29	22	10	2	39	26	− 2	−18	11	− 3	7	−13	− 2	−12
2....	55	14	52	22	56	15	44	22	54	15	46	34	47	0	32	15	12	0	41	28	− 9	−21	24	− 5	2	−20	− 7	−22
3....	41	16	45	21	59	12	49	15	42	16	41	15	34	2	21	10	38	− 3	39	26	26	−21	31	17	33	− 5	25	−26
4....	48	12	44	25	44	19	36	15	34	12	42	25	31	14	35	16	33	11	44	27	12	− 2	30	18	41	28	13	− 9
5....	41	29	43	22	45	25	47	16	42	10	40	26	42	24	32	12	43	8	42	26	11	− 8	36	15	43	12	13	− 3
6....	46	26	47	22	50	22	41	21	30	12	38	21	38	20	28	13	32	15	36	20	22	0	32	20	34	12	19	− 6
7....	44	11	35	18	45	20	30	10	32	10	31	14	32	15	17	4	33	8	39	19	29	4	32	20	32	12	24	− 5
8....	38	5	39	17	40	13	42	4	34	8	31	14	32	10	24	2	33	9	38	19	26	0	35	18	30	12	25	− 9
9....	40	4	46	15	43	5	44	4	38	4	36	12	35	7	33	1	35	0	40	17	13	− 6	27	14	41	6	12	−16
10....	46	10	52	19	56	10	43	9	40	16	40	24	42	13	32	10	45	0	44	24	33	− 1	32	14	43	15	22	−10
11....	54	14	56	22	64	19	50	15	51	20	47	22	52	16	36	15	40	7	42	22	20	− 4	45	17	58	17	20	− 8
12....	56	21	52	27	59	19	44	14	52	25	45	21	49	12	29	16	40	6	38	26	32	7	37	25	40	22	35	3
13....	49	15	46	22	52	19	40	14	48	16	44	20	44	15	26	18	41	15	37	22	37	7	34	20	40	24	28	− 2
14....	44	21	47	21	48	19	31	21	40	18	36	22	33	25	24	2	38	19	39	20	28	10	30	14	32	15	27	− 2
15....	36	19	29	17	38	14	27	4	36	20	29	14	30	15	24	0	39	10	36	6	13	4	30	16	32	7	15	− 5
16....	32	10	28	20	33	24	29	0	32	18	25	18	34	11	20	− 3	35	8	37	11	25	−12	29	15	32	14	19	−13
17....	38	− 1	34	18	40	16	31	− 9	40	10	26	− 4	34	8	27	− 7	43	6	40	14	20	0	25	11	27	7	13	−10
18....	41	11	25	16	24	10	33	4	30	10	24	− 4	27	12	25	6	20	5	38	20	14	− 1	30	12	29	11	11	−14
19....	35	11	16	8	25	9	22	12	24	10	25	11	22	14	15	2	17	10	39	12	7	−11	20	4	21	4	7	−12
20....	26	7	15	0	26	8	20	0	20	2	18	3	22	1	18	0	16	6	38	6	11	− 6	18	3	20	8	8	−15
21....	27	− 2	12	−13	22	− 5	16	− 7	24	− 4	15	− 2	31	− 2	19	− 3	18	− 5	36	− 3	4	−21	14	− 3	30	− 8	1	−20
22....	34	− 7	20	− 7	31	− 7	15	−11	31	3	21	− 3	34	0	27	−10	30	− 8	38	− 1	9	−17	18	− 1	42	0	13	−20
23....	36	− 4	33	− 4	43	− 6	19	−16	36	4	30	1	37	3	27	− 9	36	− 9	40	20	24	−14	19	1	42	0	12	−18
24....	44	0	40	7	45	21	21	−12	41	10	31	4	34	4	34	2	41	− 3	41	20	28	− 5	31	4	42	10	24	−18
25....	46	19	31	16	34	19	27	− 2	36	18	30	6	27	19	21	9	30	16	36	22	26	2	24	14	37	22	30	16
26....	32	10	16	9	22	14	17	10	24	10	19	10	19	5	13	− 3	16	8	35	20	18	−10	15	6	23	3	20	− 8
27....	33	1	14	7	22	10	10	− 8	22	10	26	1	14	−14	12	−13	21	5	33	− 9	4	−24	15	1	27	− 9	10	−15
28....	22	− 5	30	7	35	8	12	−16	31	10	29	13	20	−20	27	−12	26	− 5	28	−11	20	−27	14	− 6	29	−15	4	−29
Mns..	39.6	9.9	35.5	14.2	41.0	13.5	31.6	5.4	36.1	11.8	32.6	13.2	32.7	8.2	25.2	4.1	30.8	5.0	38.3	16.0	17.9	−7.2	26.4	10.0	32.3	6.8	15.8	−11.0

Date.	Montana.				North Dakota.								South Dakota.													
	Miles City.		Poplar.		Berthold Agency.		Bismarck.		Dickinson.		Jamestown.		Williston.		Aberdeen. §§		Huron.		Kadoka.		Kimball.		Lemmon.		Pierre.		Rapid City.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	7	− 4	7	− 7	8	−10	9	−12	17	8	12	− 9	− 5	−17	20	17	38	− 2	48	11	.....	.....	29	− 4	36	2	33	6
2....	0	− 6	− 1	−20	5	−24	9	−15	17	−22	− 9	−16	− 4	−23	24	− 9	28	− 6	52	1	.....	.....	21	− 9	50	− 1	56	5
3....	29	−11	25	−20	20	−22	23	−14	22	−22	− 9	−14	20	−20	20	− 8	20	− 4	41	− 2	.....	.....	28	− 9	38	− 2	40	0
4....	24	13	17	− 7	20	−11	8	− 9	13	−16	− 5	− 9	4	−12	8	2	19	8	39	14	25	14	23	6	26	11	40	14
5....	20	7	17	− 5	5	−12	9	−11	9	−10	3	−16	5	− 5	10	− 6	15	8	26	0	18	12	10	− 1	18	9	20	8
6....	28	2	18	− 7	24	0	18	6	19	− 8	11	− 3	15	− 1	18	0	16	2	40	− 1	18	3	25	3	20	1	51	5
7....	33	8	22	− 5	25	8	25	11	21	8	15	8	19	9	32	− 4	31	11	39	13	32	15	31	15	38	15	37	17
8....	30	8	22	0	20	− 2	27	7	25	7	19	11	22	6	35	− 6	32	− 1	40	12	34	14	31	11	42	13	38	16
9....	22	0	14	−15	25	− 9	19	− 1	20	− 4	19	− 6	16	− 7	20	− 5	18	0	35	9	25	3	31	4	32	11	39	12
10....	36	− 2	27	− 8	27	− 2	25	3	28	4	20	−10	26	0	27	− 9	28	− 4	57	15	33	3	40	8	37	10	57	17
11....	28	8	20	− 7	29	−11	22	0	37	3	19	3	27	2	33	− 3	32	2	.....	.....	37	13	42	14	36	8	60	24
12....	38	4	34	3	27	− 2	26	12	33	4	33	2	28	8	35	− 3	36	16	59	20	41	23	55	17	58	11	56	27
13....	30	6	29	12	37	− 5	30	6	40	5	38	3	33	3	38	15	32	15	52	19	45	23	42	18	40	22	47	19
14....	36	15	33	9	30	5	26	8	30	13	30	0	31	4	32	10	32	8	44	22	30	12	35	18	36	16	39	22
15....	24	6	21	0	25	5	24	− 3	28	9	32	18	20	5	37	15	35	21	36	27	34	28	29	19	33	21	31	22
16....	30	− 2	18	−15	25	−13	20	− 9	35	− 8	25	− 5	26	− 5	23	8	25	13	29	20	33	19	27	8	24	19	32	26
17....	30	− 3	19	−11	20	−16	20	− 5	28	2	14	2	12	− 6	33	10	31	14	39	15	34	18	41	5	34	16	46	23
18....	16	0	9	−20	12	−19	11	−11	13	−17	6	− 8	2	−19	20	− 2	14	3	33	9	32	8	27	3	20	5	27	15
19....	14	− 3	10	−20	8	−19	6	−16	8	−16	2	−12	6	−17	14	− 8	8	− 8	22	6	15	2	19	− 3	14	1	25	12
20....	8	− 8	9	−24	8	−16	9	− 8	8	−16	− 2	−13	2	−21	20	−10	8	− 9	18	− 3	14	− 8	13	0	12	0	19	4
21....	12	−11	5	−26	18	−15	16	− 7	15	−11	8	−10	10	−17	21	−13	21	−11	26	− 5	19	−11	26	− 2	24	− 3	29	0
22....	24	− 4	18	−24	26	−15	23	− 4	39	−10	30	− 6	15	−13	29	2	24	5	36	7	27	2	37	6	28	5	35	13
23....	24	− 6	18	−21	32	−22	29	− 9	30	− 7	34	− 1	20	−11	37	3	37	7	47	13	37	17	44	10	44	5	42	12
24....	36	− 4	28	−12	38	− 4	39	7	45	5	38	15	34	5	42	8	38	9	57	14	40	14	49	14	56	18	57	15
25....	28	6	24	3	30	− 4	32	6	31	9	32	5	28	− 6	32	12	31	23	39	23	35	20	41	17	41	22	37	21
26....	19	− 3	23	0	21	− 4	18	− 5	24	− 2	29	4	14	4	21	9	23	8	28	8	30	14	25	5	24	15	21	13
27....	14	0	24	− 4	20	−22	12	−10	23	−19	6	−17	13	−12	22	− 5	17	− 1	25	5	31	5	22	− 2	24	6	18	8
28....	20	−10	17	−21	25	−21	27	− 6	20	−12	25	−12	19	−10	35	− 5	31	3	37	9	35	10	34	3	38	10	28	7
Mns..	23.6	0.2	18.8	−9.7	21.8	−10.1	20.1	−3.2	23.9	−4.4	17.0	−3.4	16.4	−6.2	26.0	0.5	25.7	4.6	38.7[a]	10.4[a]	30.2[a]	10.9[a]	31.3	6.2	33.0	9.5	37.9	13.7

TABLE 3.—*Maximum and minimum temperatures at selected stations for February, 1911. District No. 6*—Continued.

Date.	South Dakota.						Colorado.				Nebraska.															
	Sioux Falls.		Watertown.		Yankton.		Denver.		Wray.		Alma.		Bridgeport.		Grand Island.		Hay Springs.		Hebron.		Lincoln.		North Platte.		Oakdale.		Omaha.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	43	5	34	− 1	43	4	55	32	64	36	61	29	49	33	50	36	50	23	67	37	56	20	55	23	42	12	49	16
2	25	7	22	−10	33	0	60	25	61	16	46	11	55	26	40	10	53	13	40	12	37	12	52	15	34	6	32	7
3	37	10	20	− 6	31	2	62	36	58	16	55	17	53	20	36	18	48	12	35	19	33	20	50	20	27	7	29	18
4	34	20	14	2	29	13	53	31	45	21	45	16	46	29	38	16	44	16	42	15	37	20	41	19	32	10	35	19
5	20	8	10	− 5	21	15	53	26	51	26	39	32	37	24	34	30	37	15	38	32	34	23	33	19	25	14	32	24
6	26	9	20	5	20	6	54	24	58	15	42	12	58	16	38	2	52	12	37	19	27	17	49	18	20	2	25	18
7	29	10	32	13	32	16	48	20	47	15	47	13	37	18	35	10	47	18	43	16	36	18	45	19	31	11	32	21
8	33	6	32	7	36	10	45	15	48	7	54	11	44	7	47	15	38	12	50	13	48	19	48	14	35	3	42	20
9	26	7	24	3	23	2	56	17	56	6	50	12	50	6	35	17	47	10	42	15	32	19	51	13	23	2	31	18
10	28	5	26	0	41	− 2	58	23	66	12	63	20	59	10	68	21	59	17	59	17	58	20	58	15	41	− 2	47	16
11	41	16	38	9	43	25	63	27	70	16	62	23	66	12	59	32	61	18	49	40	50	38	64	18	42	32	47	38
12	38	28	33	26	44	32	62	36	71	22	71	29	63	15	68	49	63	32	70	34	65	38	70	20	42	31	50	36
13	39	29	40	22	38	29	50	28	57	35	52	41	55	15	40	34	58	25	40	36	53	34	54	28	36	26	46	34
14	47	30	36	22	38	26	57	28	62	26	53	15	55	17	60	24	56	13	57	26	48	30	62	21	38	19	45	32
15	37	28	32	29	35	31	33	25	48	28	53	26	40	25	41	30	35	25	49	37	51	35	40	28	35	27	53	36
16	36	28	32	20	33	27	29	25	38	27	40	32	32	25	34	31	31	23	38	34	38	34	31	26	33	30	39	35
17	34	20	36	20	30	25	38	26	32	24	34	28	43	22	30	28	40	17	34	32	34	32	38	22	31	26	35	32
18	32	9	22	5	26	14	28	20	39	9	34	26	34	10	41	20	38	10	35	30	36	25	32	17	26	14	34	25
19	24	5	18	0	16	1	20	10	28	5	26	16	30	11	21	11	24	8	30	17	25	15	24	11	16	6	25	16
20	20	2	13	− 5	13	− 3	16	0	36	− 2	22	5	24	.....	15	4	20	5	24	8	22	9	25	7	15	1	20	8
21	15	7	25	− 8	17	− 7	11	0	38	− 3	27	1	30	.....	22	− 2	24	− 7	24	3	24	4	27	− 2	19	− 5	24	5
22	29	8	30	5	26	10	20	− 2	46	3	37	3	36	.....	34	18	32	− 2	39	14	37	18	37	1	28	11	35	16
23	36	10	38	5	34	7	34	0	48	6	42	12	42	.....	40	12	37	− 1	40	15	39	13	45	6	35	2	38	15
24	45	12	42	17	48	19	36	11	48	18	52	16	55	.....	51	18	51	4	53	19	55	24	50	9	46	13	54	26
25	38	15	44	24	42	29	39	21	36	17	48	26	50	.....	47	31	49	20	47	30	46	31	47	18	42	26	44	33
26	26	6	27	8	32	16	26	15	26	14	35	24	29	.....	41	21	28	13	35	26	34	22	29	16	26	17	34	22
27	27	3	20	− 2	23	7	18	6	19	14	26	18	25	17	35	13	23	6	26	18	23	17	28	14	21	10	23	14
28	38	12	24	2	33	10	25	9	32	11	26	15	29	11	31	13	30	6	27	20	30	18	31	16	30	9	30	18
Mns..	32.2	12.7	28.0	7.4	31.4	13.0	41.0	19.1	47.4	15.7	44.1	18.9	43.8	17.6	40.4	20.1	42.0	13.0	41.8	22.6	39.6	22.3	43.4	16.1	31.1	12.9	36.8	22.1

Date.	Nebraska.		Iowa.						Kansas.										Missouri.							
	Valentine.		Clarinda. §§		Sibley. §§		Sioux City.		Colby.		Concordia.		Salina.		Topeka.		Wakeeney.		Columbia.		Kansas City.		St. Louis.		Unionville. §§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	47	9	50	34	45	28	44	6	65	36	70	30	73	40	68	30	67	37	81	33	71	31	84	44	63	30
2	54	8	22	8	26	− 1	26	1	67	15	42	16	40	16	38	18	51	11	38	19	35	19	47	24	34	14
3	41	3	42	8	20	− 1	25	6	57	20	43	20	60	17	50	26	60	18	54	30	51	27	45	28	43	12
4	38	15	42	14	26	7	31	15	50	23	44	20	48	18	43	24	51	18	41	21	41	24	41	27	44	18
5	25	10	28	14	15	10	22	17	51	21	59	26	63	40	62	34	51	29	46	31	47	33	39	32	32	20
6	42	0	30	18	25	9	21	14	59	10	39	20	53	15	35	25	40	12	43	28	36	25	42	28	34	18
7	40	17	35	20	30	10	30	15	65	6	45	20	48	19	42	23	40	15	41	26	38	24	39	28	45	22
8	42	15	43	8	35	− 1	35	8	67	9	50	13	51	11	49	22	54	12	46	21	47	24	40	26	40	12
9	36	11	31	13	20	− 1	24	5	59	9	47	22	47	11	42	27	50	15	40	22	41	30	41	29	30	14
10	60	20	48	13	33	− 6	42	− 2	64	14	60	22	58	20	56	22	58	22	47	17	54	21	39	21	40	8
11	64	24	48	14	43	2	44	34	75	18	54	39	50	23	43	37	67	30	48	33	43	38	46	34	47	12
12	66	28	47	38	37	5	40	32	83	22	71	39	63	40	58	42	78	34	54	40	57	39	44	38	44	34
13	48	22	50	38	36	32	38	31	65	35	54	36	60	41	55	40	71	39	64	42	58	44	58	39	52	38
14	53	21	47	32	38	29	40	31	62	28	58	30	56	29	59	33	58	27	54	37	57	36	58	42	64	36
15	35	26	64	32	34	30	40	32	54	24	52	37	58	35	71	46	55	29	78	36	72	41	69	38	62	32
16	26	23	36	35	33	30	34	33	35	28	42	36	50	38	59	41	51	29	76	58	70	43	76	55	60	34
17	38	18	36	34	32	29	34	29	32	26	37	33	38	34	43	36	34	30	65	39	50	36	77	42	40	36
18	22	11	35	31	23	18	29	19	32	24	35	28	34	30	36	29	30	26	39	32	36	29	42	30	36	34
19	18	6	26	22	18	8	23	10	28	10	28	16	30	22	29	22	27	15	32	22	29	24	30	24	30	24
20	16	− 2	24	11	17	2	17	− 1	28	0	28	12	27	6	27	12	23	6	26	13	27	16	27	19	26	12
21	26	− 5	28	6	27	− 3	18	− 2	27	− 6	26	6	25	4	22	7	20	1	22	7	24	10	25	16	24	7
22	35	11	40	7	33	− 3	31	11	47	− 4	39	13	38	3	36	13	35	4	31	10	36	14	22	16	37	8
23	45	7	38	15	38	8	36	11	56	3	42	19	37	10	35	19	41	10	35	6	36	20	39	22	40	16
24	50	15	52	16	48	8	49	23	50	6	51	24	44	9	47	20	45	13	43	19	49	22	46	25	51	18
25	39	24	48	28	45	18	44	30	52	23	44	31	40	32	44	32	49	28	48	30	46	34	52	35	48	25
26	26	12	40	30	25	18	31	17	46	20	37	26	42	26	39	29	38	21	39	33	39	29	49	35	35	26
27	24	5	25	15	22	3	24	9	26	15	26	19	35	20	29	22	29	17	34	22	29	21	40	28	28	14
28	36	10	30	13	31	4	31	12	28	12	25	20	25	19	25	21	26	15	29	21	26	19	32	23	31	15
Mns..	39.0	13.0	38.8	20.2	30.5	10.4	32.2	15.9	51.1	16.0	44.6	24.0	46.2	22.4	44.4	26.9	46.4	20.1	46.2	26.7	44.5	27.6	46.4	30.3	41.4	21.0

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 7, LOWER MISSISSIPPI VALLEY.

ISAAC M. CLINE, District Editor.

GENERAL SUMMARY.

Temperature conditions were generally moderate at the opening of the month, but on the 2d a cool wave overspread the northwestern portion of the district, and reached the eastern and southern portions on the 3d. From the 4th to the 21st temperatures were much above the seasonable average, the highest temperatures of the month being recorded during this period. The maximum temperatures were above 80° at many stations, and they were above 90° in parts of Oklahoma and the Texas area. On the 22d a severe cold wave overspread the district, giving temperatures below zero over the northwestern portion of the district, and below 20° as far south as northern Louisiana. Light frosts occurred to the Gulf coast during this cold period. From the 25th to the close of the month temperatures were above the normal, maximum temperatures being generally above 40° in the northern and western and above 70° in the southern portion of the district.

Periods of precipitation were not well defined, and it is not practicable to generalize them for the district as a whole. In the Colorado area there were three, 1st–5th, 13th–21st, and 24th–28th, and the amounts were moderately heavy, being above normal in most localities. Over the New Mexico area there were four periods, 4th–5th, 13th, 16th–21st, and 26th–28th. The precipitation was heavy over this area, especially on the 17th and 18th, and the amounts were above the normal at all stations. Over the Texas area the periods of precipitation were not well defined, but generally speaking there were three, 7th–13th, 16th–19th, and 27th–28th. On the 17th and 18th the rainfall was heavy, and the monthly amounts were above the normal. In the Kansas area there were four periods of precipitation as follows, 4th–5th, 13th–14th, 16th–19th, 25th–28th. The precipitation was heavy from the 16th to 18th and the monthly amounts were above the normal at all stations. Over Oklahoma there were four periods of general precipitation, 11th, 13th 16th–19th, and 25th–28th. Light-scattered precipitation occurred on other dates also. From the 16th to the 19th the amounts were heavy, and the monthly totals were above the normal at all stations. Over the Missouri area there were three periods of precipitation, 5th and 6th, 11th–20th, and 25th–28th. The amounts were slightly above the normal and the precipiation was well distributed for agricultural needs. Over the Tennessee area there were five periods of precipitation, 3d–4th, 6th–8th, 11th–14th, 18th–20th, and 26th–28th. The precipitation was well distributed, but below the normal in all parts of this area. Over Arkansas the periods of precipitation, speaking broadly, were two, 3d–21st, and 25th–28th. During these periods showers occurred at one or more stations every day, and on the 19th general rains fell. The monthly amounts were above the normal except over the northeastern portion of the State and at a few scattered stations in the southeast portion, where there was a deficiency. Over the Mississippi area there were three periods of precipitation, 3d–14th, 19th–20th, and 26th–28th. The amounts were above normal in the northern and below in the southern portion of the State. Many localities lying south of the thirty-third parallel were needing rain badly at the close of the month. Over Louisiana there were three periods of light-scattered showers, 7th–14th, 18th–20th, and 26th–28th. The monthly amounts were below the normal, and at the close of the month rain was badly needed for agricultural and commercial interests in all parts of the State.

TEMPERATURE.

Mean temperatures for the month were above the normal, the departures ranging from 2° to 11.8°, except over the Colorado and New Mexico areas, where there was a general deficiency ranging from −0.4° to −6.4°. The coldest portion of the district was the Colorado area, with a mean temperature of 27.2°. The warmest was Louisiana, with a mean of 61.1°. Maximum temperatures reached or exceeded 90° in Oklahoma and the Texas area, and 85° in all other States and areas, except in the New Mexico area, where the highest recorded was 76°. The highest for the district was 94° at Hennessey, Okla., and 92° was recorded at Henrietta, Tex. Minimum temperatures were below zero generally over Oklahoma and the Colorado, New Mexico, and Kansas areas, and over the Texas panhandle. In the Missouri area and in northern Arkansas the minimums were below 10°. To the southward over Louisiana and Mississippi freezing temperatures occurred generally, and a minimum of 26° was recorded on the Gulf coast in Louisiana. The cold weather at this time interfered materially with agricultural and commercial interests, especially in Louisiana, where much damage resulted. The lowest temperature recorded during the month was −27° at Elizabethtown, N. Mex., and −25° was recorded at Westcliffe, Colo. Taken as a whole, temperature conditions during the month were unseasonably warm, except during the early part of the second decade, when the severe cold wave above mentioned occurred. Much of the damage done by this cold wave was due to the fact that the warm weather earlier in the month had caused all vegetation to be much further advanced than usual for this time of the year.

Monthly mean temperatures and departures from the normal for the various States and parts of States are reported as follows: Colorado area, 27.2°, −1.7°; New Mexico area, 33.3°, −2.4°; Texas area, 42.7°, +4.8°; Kansas area, 37.2°, +5.8; Oklahoma, 44.2°, +6.1; Missouri area, 42.1°, +7.8°; Tennessee area, 46.2°, +6.5°; Arkansas, 49.8°, +8.6°; Mississippi area, 55.3°, +8.9°; Louisiana, 61.1°, +8.9°.

PRECIPITATION BY DRAINAGE AREAS.

Arkansas River and tributaries.—Heavy precipitation occurred over the greater portion of this drainage area, there being more than the normal amount, except at a few scattered stations in Colorado and Arkansas. Over the headwaters of the Arkansas River, in Colorado, the average precipitation from 37 stations was 1.64 inches, about 0.6 inch above the normal. The precipitation was unusually heavy over those portions of the Arkansas Valley proper that lie in Kansas and Oklahoma, where the average from 41 stations was 4 inches, and the average excess was 3 inches. Five stations reported more than 6 inches. The average from 21 stations in the Cimarron Valley was 3.10 inches, 2.1 inches above the normal. Over the Canadian Valley above the Texas-Oklahoma line, the precipitation from 45 stations averaged 1.57 inches, about 0.8 inch above the normal. The precipitation was heavier over that portion of the Canadian Valley that lies in Oklahoma, the average from 18 stations being 3.10 inches, about 1.5 inches above the normal. The precipitation from 10 stations in the Verdigris Valley averaged 5.32 inches, about 3.8 inches above the normal. In the Neosho Valley the precipitation was excessive, except at a few places in Missouri, the average from 17 stations being 4.41 inches, about 2.2 inches above the normal. Over that portion of the Arkansas Valley below the Oklahoma-Arkansas line the average precipitation from 16 stations was 4.09 inches, about 0.7 inch above the normal.

Red River and tributaries.—Generally heavy precipitation occurred over this drainage area, except in Louisiana, where the amounts were generally less than the normal. Over those portions of this drainage area that lie in New Mexico, Texas, and Oklahoma, the precipitation from 42 stations averaged 3.55 inches, about 2.2 inches above the normal. Below the Texas-Arkansas line the average from 17 stations was 3.51 inches, about 1.6 inches below the normal.

Mississippi south of St. Louis and small tributaries.—Less than the normal amount of precipitation occurred over the greater portion of this drainage area. In the immediate Mississippi Valley the amounts from 40 stations averaged 2.94 inches, about 1.2 inches below the normal. Over the valley of the Meramec the precipitation averaged about 0.5 inch above the normal. The average from 20 stations in the White River Valley was 3.51 inches, about 0.2 inch above the normal. The precipitation was heavy over portions of the Yazoo Valley, the average from 31 stations being 5.04 inches, about 0.7 inch above the normal. Less than the normal amount of precipitation occurred throughout the Valley of the Big Black, the average being 3.72 inches, about 1.8 inches below the normal. The precipitation was above the normal over the Ouachita Valley, except in Louisiana, the average amount from 18 stations being 4.62 inches, about 0.2 inch above the normal.

Louisiana coastal plain.—Very little precipitation occurred over this area, there being less than 1 inch at several stations. The average from 29 stations was 1.02 inches, about 3.9 inches below the normal.

Monthly precipitation and departures from the normal for the various States and parts of States are reported as follows: Colorado area, 1.63, +0.66; New Mexico area, 1.26, +0.62; Texas area, 3.87, +2.06; Kansas area, 4.62, +3.54; Oklahoma, 3.35, +1.93; Missouri area, 3.23, +0.38; Tennessee area, 3.00, −1.31; Arkansas, 4.31, +0.65; Mississippi area, 4.37, −1.06; Louisiana, 1.65, −3.25.

SNOWFALL.

Snow occurred generally north of the thirty-fifth parallel and at some stations in the western portion of the district to the south of that parallel. In the Colorado area the greatest monthly amount was 78 inches at Hermit Lake and the least 11 inches at Limon (near) and Vilas. The last half of the month was stormy and valuable additions to the stock of snow in the mountains were made. The fall was above the normal in all parts of the Arkansas basin except in Lake County and the northern part of Saguache County. The average amount on the ground at the close of the month was 25 inches, which is practically the same as at the close of February, 1910. As a whole, the snow is loosely packed and the prospects are for somewhat less than a normal flow of irrigation water. In the New Mexico area a marked change occurred during the month in the outlook for irrigation water. General and heavy snow occurred during the last half of February over all the higher districts and mountain ranges of the territory and heavy rains over most of the lower levels, filling the soil with abundant moisture and changing a most discouraging outlook for irrigation water to one of general encouragement. The early flow of water especially will be abundant in some of the tributaries of the Canadian, while the main stream will have a good early flow unless warm winds occur during the spring months when the rapid run-off occasioned thereby will cause high water to come too early for its most successful use. A calm, wet, and rather cool spring will aid materially, but rain will be needed to insure a late flow of water. The monthly amounts ranged from 4 to 25 inches generally. In Texas the snowfall was confined generally to the Panhandle, the greatest monthly amount being 12.2 inches at Texline. In the Kansas and Missouri areas the snowfall was heavy, the amounts ranging from a trace to 14.5 inches. Over Oklahoma and northern Arkansas the amounts were generally less than 3 inches, except in extreme western Oklahoma where the monthly amounts ranged from 8 to 14.3 inches. Traces of snow were recorded at some stations in the Tennessee area and the northern portion of the Mississippi area and in southern Arkansas, but over Louisiana and southern Mississippi no snow occurred during the month. At the close of the month the district was bare of snow at ordinary elevations, except that there was a light amount on the ground in the Kansas area, and over the New Mexico and Colorado areas the amounts on the ground at ordinary elevations ranged from a trace to 15 inches. The average snowfall (in inches) for the various States and areas derived from the records of such stations as reported snow is as follows: Colorado area (35 stations), 23.1; New Mexico area (46 stations), 12.3; Texas area (14 stations), 4.1; Kansas area (58 stations), 7. 6; Oklahoma (35 stations), 2.3; Missouri area (22 stations), 2.7; Tennessee area (6 stations), trace; Arkansas (24 stations), 0.8; Mississippi area (6 stations), trace.

RIVERS.

A general rise occurred in the upper Arkansas River toward the close of the second decade. In Kansas the water rose rapidly on the 18th and subsided on the 23d. In Arkansas low stages prevailed during the first and second decades, but during the third decade fairly good stages prevailed and navigation was resumed on the 20th after one of the longest and most unfavorable periods of low water of record.

In Oklahoma there was a rise in all streams as a result of the heavy rains of the 16th to 19th, but no floods were reported. Rivers were generally about normal stages at the close of the month.

There were a few slight rises in the Red River, but none of importance occurred.

Low stages continued in the upper White River during the early part of the month, but a freshet occurred on the 20th, which resulted in a maximum stage of 16 feet at Batesville on the 21st and of 18.6 feet at Newport on the 22d. The lower White River experienced a steady rise from 10.6 feet on the 9th to 23.2 feet on the 28th.

Changes in the Ouachita were slight during the first decade, but there was a rise of about 20 feet at Camden and 14 feet at Monroe during the second and third decades.

Below St. Louis the Mississippi rose slowly during the greater part of the month, but only moderate stages prevailed at the close.

NOTES.

Tulia, Tex.—Wheat prospects are excellent.

Winfield, Tex.—The freeze of the 21st and 22d killed more than half the fruit crop and early gardens.

Kansas (T. B. Jennings, section director).—Heavy rains after the middle of the month interfered materially with outdoor work. Wagon roads were almost impassable during the latter part of the month and transportation in the country, except by rail, was practically impossible.

Oklahoma (J. P. Slaughter, section director).—The first half of the month was mild, dry, and pleasant; the latter half was moderately cold, wet, and stormy. With one exception it was the wettest February of which there is record.

Missouri (George Reeder, section director).—Weather conditions were favorable for outdoor occupations. Country roads were in bad condition as the result of frequent rains. Wheat is reported to be in fair condition.

Arkansas (H. F. Alciatore, section director).—The severe freeze of the 21st and 22d, occurring after a protracted period of unseasonably warm weather, was very unfavorable to some of the agricultural interests of the State.

University, Miss.—The cold weather of the 21st to 23d killed a great part of the fruit and early vegetable crops.

Louisiana.—Truck gardens and fruit crops suffered seriously from the freeze on the 22d and 23d. In some localities the crops were protected successfully. The orange groves below New Orleans were protected with smudges. Where berries were covered with straw, about one-third of the crop survived the freeze.

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TABLE 1.—*Climatological data for February, 1911. District No. 7, lower Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Blaine	Baca	3,935	19	32.4	− 0.2	77	12	− 6	20†	51	1.66	+ 1.15	0.67	16.0	5	8	12	8	sw.	M. M. Myers.
Buena Vista	Chaffee	7,955	11	21.8	.....	48	2†	− 23	22	51	2.93	+ 2.48	1.35	29.5	4	15	5	8	.....	C. A. Short.
Calhan	El Paso	6,700	4	26.1	.....	59	11	− 12	22	35	1.40	.....	0.35	15.5	6	18	5	5	sw.	H. B. Rice.
Canon City §§	Fremont	5,343	23	32.8	− 2.4	64	12	− 6	22	50	1.92	+ 1.37	0.45	22.0	7	18	5	5	n.	G. C. Sherwood
Colorado Springs	El Paso	6,098	31	27.2	− 2.5	60	1†	− 10	22	42	1.81	+ 1.49	0.56	18.5	8	16	5	7	.....	Colorado College.
Cripple Creek	Teller	9,396	10	.....	.....	.....	.....	.....	.....	.....	0.78	+ 0.38	0.24	14.0	6	.....	.....	.....	.....	F. G. Willis.
Cuchara Camps	Huerfano	8,200	2	.....	.....	.....	.....	.....	.....	.....	1.57	.....	0.72	24.2	9	20	3	5	sw.	George A. Mayes.
Eads	Kiowa	4,209	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. Lauck.
Fairview	Custer	9,500	2	.....	.....	.....	.....	.....	.....	.....	2.72	.....	0.70	34.8	5	14	9	5	e.	Elizabeth L. Gray.
Fremont Exp. Sta	El Paso	8,850	1	21.1	.....	49	11	− 11	21	36	1.56	.....	0.51	24.7	8	23	4	1	w.	U. S. Forest Service.
Garfield	Chaffee	9,510	1	.....	.....	.....	.....	.....	.....	.....	2.63	.....	0.67	36.3	13	14	6	8	.....	Lloyd N. Felton.
Hamps	Elbert	5,400	18	27.0	− 0.1	63	11†	− 12	22	49	0.82	+ 0.50	0.40	14.7	5	16	4	8	n.	W. Hamp.
Hermit Lake	Custer	10,000	1	.....	.....	.....	.....	.....	.....	.....	4.92	.....	0.57	78.0	15	11	6	11	sw.	John E. Graham.
Hoehne	Las Animas	5,700	19	34.6	+ 3.1	88	6	− 18	22	73[b]	1.63	+ 1.03	0.70	13.0	8	15	5	8	w.	S. W. De Busk.
Holly	Prowers	3,380	16	32.0	− 3.0	77	12	− 10	22	60	1.10	+ 0.82	0.50	.....	7	17	9	2	nw.	Holly Sugar Co.
La Junta	Otero	4,052	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Fred B. Mason.
Lake Moraine	El Paso	10,265	17	19.5	− 1.6	56	1	− 22	21	35	1.55	+ 0.54	0.35	28.8	11	12	4	12	sw.	Clyde C. McReynolds.
Lamar	Prowers	3,592	21	32.0	− 1.1	75	12†	− 11	20	55	1.83	+ 1.33	0.44	11.2	5	19	3	6	e.	J. T. Lawless.
Las Animas	Bent	3,899	43	31.8	− 0.2	75	12	− 15	22	54	1.66	+ 1.27	0.47	22.0	8	13	3	12	se.	F. M. Tague.
La Veta Pass	Costilla	9,000	1	.....	.....	.....	.....	.....	.....	.....	2.74	.....	0.60	41.1	11	10	7	11	w.	Marine D. Wright.
Leadville	Lake	10,248	15	17.4	− 0.9	44	17	− 15	21	42	0.82	− 0.81	0.25	12.1	10	9	8	11	n.	U. S. Weather Bureau.
Limon (near)	Elbert	5,360	4	26.8	.....	64	11	− 14	21†	46	0.73	.....	0.25	11.0	5	19	3	6	.....	F. L. Palmer.
Madrid	Las Animas	.....	1	.....	.....	.....	.....	.....	.....	.....	1.13	.....	0.48	17.8	8	.....	.....	.....	.....	Thos. Sawyers.
Marshall Pass	Saguache	10,846	8	.....	.....	.....	.....	.....	.....	.....	1.25	− 1.61	0.62	31.0	8	13	9	6	w.	William D. Lillard.
Monument	El Paso	7,200	....	25.6	.....	56	13	− 13	20†	38	1.90	.....	0.78	20.0	5	15	6	7	w.	U. S. Forest Service.
North Lake	Las Animas	8,700	1	.....	.....	.....	.....	.....	.....	.....	1.53	.....	0.40	19.0	8	18	2	8	nw.	James W. Ingmire.
Pueblo	Pueblo	4,734	23	29.0	− 2.8	67	11	− 10	22	48	0.99	+ 0.54	0.38	17.3	9	13	10	5	nw.	U. S. Weather Bureau.
Rocky Ford	Otero	4,177	22	31.5	− 0.1	72	12	− 16	22	54	0.65	+ 0.31	0.42	.....	4	18	8	2	w.	P. K. Blinn.
St. Elmo	Chaffee	9,500	2	.....	.....	.....	.....	.....	.....	.....	2.07	.....	0.30	27.2	12	9	11	8	e.	Daniel Clark.
Salida §§	....do	7,035	12	24.9	− 5.8	52	11	− 20	22	53	4.05	+ 3.38	1.65	40.5	7	19	2	7	w.	M. D. L. Buell.
Santa Clara	Huerfano	8,252	16	25.8	− 2.9	58	11	− 12	22	42	1.66	+ 0.21	0.54	20.2	9	11	12	5	.....	Lincoln G. Morris.
Sheridan Lake	Kiowa	4,065	9	28.4	− 2.4	72	15	− 16	23	56	1.30	+ 1.08	0.71	.....	3	24	1	3	ne.	Howard Gamble.
Stonewall	Las Animas	8,000	5	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.36	13.5	7	12	11	5	.....	J. W. Shouse.
Trinidad	....do	5,994	15	.....	.....	.....	.....	.....	.....	.....	1.06	+ 0.18	0.86	23.5	7	17	5	6	.....	Mrs. Mattie H. Butler.
Victor (near)	Teller	10,100	7	26.6	− 3.1	58	1	− 4	21	29	0.92	+ 0.56	0.42	14.0	5	22	4	2	e.	Fred Jones.
Vilas	Baca	3,935	20	.....	.....	.....	.....	.....	.....	.....	1.22	+ 0.78	0.37	11.0	7	8	5	15	nw.	Carrie Konkel.
Wayne	El Paso	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.23	.....	0.44	.....	6	.....	.....	.....	.....	J. C. Groff.
Westcliffe	Custer	7,864	17	23.7	− 2.6	54	4	− 25	22	52	1.42	+ 0.80	0.77	23.0	5	8	10	10	nw.	Zack Jordan.
Winfield	Chaffee	9,765	1	.....	.....	.....	.....	.....	.....	.....	0.95	.....	0.23	16.0	14	6	12	10	w.	John G. Payne.
Woodman Sanatorium	El Paso	.....	1	28.3	.....	58	11	− 5	20†	36	1.31	.....	0.42	26.9	6	13	4	11	.....	Dr. J. E. White.
Wortman	Lake	11,250	10	.....	.....	.....	.....	.....	.....	.....	1.48	− 2.49	0.50	20.0	7	0	10	18	ne.	George C. Wortman.
New Mexico.																				
Abbott	Mora	5,771	2	34.7	.....	66	12	− 21	23	58	0.48	.....	0.32	6.0	5	13	5	10	s.	Agent E. P. & S. W. R. R
Albert	Union	4,700	20	36.4	− 2.5	72	1†	0	22	43	0.85	+ 0.38	0.37	6.0	5	18	4	6	w.	Andrew Knell.
Arch (near)	Roosevelt	4,634	2	.....	.....	72	1	− 6	21	44	0.99	.....	0.68	.....	3	10	2	16	se.	Wm. A. Elliott.
Aurora	Colfax	8,849	2	.....	.....	.....	.....	.....	.....	.....	1.17	.....	0.32	19.5	9	1	23	4	nw.	Miss Juanita Lucero.
Bell Ranch	San Miguel	4,500	12	38.6	.....	76	3	2	22†	50	1.37	+ 0.79	0.63	9.0	6	10	9	9	w.	C. M. O'Donel.
Black Lake	Colfax	8,348	2	.....	.....	.....	.....	.....	.....	.....	0.84	.....	0.39	12.2	8	6	14	8	w.	R. T. Martinez.
Cabeza	San Miguel	5,406	2	.....	.....	.....	.....	.....	.....	.....	1.54	.....	0.90	7.7	7	5	16	7	sw.	Agent E. P. & S. W. R. R.
Campana	....do	4,493	2	.....	.....	.....	.....	.....	.....	.....	0.95	.....	0.42	10.0	7	4	14	10	w.	Do.
Chacon	Mora	9,000	2	.....	.....	.....	.....	.....	.....	.....	1.71	.....	0.87	24.2	5	7	12	9	w.	Alfredo Lucero.
Cimarron (near)	Colfax	6,385	7	31.2	.....	65	3	− 7	22	47	1.13	.....	0.60	20.5	6	12	9	7	e.	Wm. French.
Clayton	Union	5,178	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. W. W. Chilton.
Clovis	Curry	4,129	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. R. Worrall.
Cuervo	Guadalupe	4,849	2	38.2	.....	68	3	2	22	36	2.19	.....	1.30	11.0	3	11	9	8	sw.	Agent E. P. & S. W. R. R.
Dawson	Colfax	6,396	2	.....	.....	.....	.....	.....	.....	.....	1.17	.....	0.56	14.2	8	3	15	10	.....	Do.
Dorsey (near)	....do	6,000	8	36.2[b]	.....	68	5†	.....	.....	50	1.05	.....	0.70	13.0	4	13	9	6	sw.	Geo. T. Lambert.
Elizabethtown	....do	8,465	5	23.0[c]	.....	56	12	− 27	22	59	2.33	.....	0.73	24.0	7	10	9	9	nw.	Miss M. Carrington.
Folsom	Union	6,399	11	31.6	− 0.4	68	13	− 12	22	45	1.55	+ 0.94	1.05	15.0	5	6	15	7	sw.	David Rope.
Fort Union	Mora	6,835	51	28.4	− 6.4	67	5	− 16	22	50	0.91	+ 0.45	0.30	13.0	6	15	3	10	nw.	M. C. Needham.
Hayden	Union	4,444	2	36.0	.....	72	1	− 6	22	46	0.72	.....	0.40	12.5	5	11	9	8	sw.	Jas. B. Dickson.
Johnsons Park	Colfax	6,722	2	.....	.....	.....	.....	.....	.....	.....	1.13	.....	1.00	4.0	4	12	8	8	sw.	A. J. Meloche, jr.
Kappus	Quay	4,000	....	.....	.....	.....	.....	.....	.....	.....	1.25	.....	0.75	8.0	5	.....	.....	.....	.....	Anthony Kappus.
Lake Alice	Colfax	7,160	2	.....	.....	.....	.....	.....	.....	.....	1.96	.....	0.63	30.5	5	.....	.....	.....	.....	Raton Water Co.
Logan	Quay	3,851	5	37.5[d]	.....	73	1†	− 1	22	57	1.22	.....	0.72	9.5	4	17	7	4	sw.	John B. Reneau.
Los Alamos	San Miguel	6,789	6	.....	.....	.....	.....	.....	.....	.....	1.36	.....	0.84	19.0	6	.....	.....	.....	.....	Wm. Frank, sr.
Lykins (near)	Roosevelt	5,000	1	.....	.....	.....	.....	.....	.....	.....	1.18	.....	0.74	4.6	5	12	10	6	ne.	J. G. Buchanan.
Maxwell (near)	Colfax	5,894	4	.....	.....	.....	.....	.....	.....	.....	0.42	.....	0.21	5.8	5	.....	.....	.....	.....	D. N. Jackson.
Melrose	Curry	4,400	3	.....	.....	.....	.....	.....	.....	.....	1.27	.....	0.48	2.0	4	.....	.....	.....	.....	Dr. B. M. Porter.
Miami Ranch	Colfax	6,000	3	30.3	.....	63	3	− 16	22	49	1.48	.....	1.26	20.2	5	14	9	5	w.	Farmers' Development Co.
Montoya	Quay	4,335	2	.....	.....	.....	.....	.....	.....	.....	1.42	.....	0.70	11.5	4	0	22	6	sw.	Agent E. P. & S. W. R. R.
Mount Dora (near)	Union	5,600	1	.....	.....	.....	.....	− 12	22	....	0.69	.....	0.50	6.5	4	13	7	8	sw.	Edwd. F. Grygla.
Nara Visa	....do	4,225	5	38.0	.....	73	1	2	22	45	0.83	.....	0.51	4.5	3	11	9	8	sw.	Geo. Bringle.
Optimo	Mora	6,400	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. K. Odell.
Pasamonte	Union	.....	1	.....	.....	.....	.....	.....	.....	.....	1.02	.....	0.80	13.2	4	9	5	14	w.	J. J. Heringa.
Raton	Colfax	6,660	13	32.2	− 0.4	63	11	− 5	22	45	1.43	+ 0.71	0.45	19.5	6	17	3	8	s.	Prof. R. C. Crum.
Rociada	San Miguel	8,200	7	27.3[b]	.....	56	11	− 26	21	54	1.89	.....	.....	28.0	8	5	17	6	.....	Jose A. Baca.
Rosebud	Union	4,500	....	.....	.....	.....	.....	.....	.....	.....	0.58	.....	0.52	5.0	3	.....	.....	.....	.....	H. A. Nachtrieb
Roy	Mora	5,884	2	.....	.....	.....	.....	.....	.....	.....	1.88	.....	1.02	17.2	5	10	5	13	ne.	Agent E. P. & S. W. R. R.
San Jon	Quay	4,200	4	38.6	.....	73	3†	− 4	22	41	1.19	.....	0.64	3.3	5	11	9	8	sw.	Jesse T. White.
Solano	Mora	5,622	2	32.2	.....	68	1	− 10	22	37	1.51	.....	1.05	15.0	8	14	6	8	sw.	F. M. Hughes.
Springer	Colfax	5,857	15	30.6	− 2.1	63	3†	− 19	23	52	0.84	+ 0.48	0.70	11.2	5	23	3	2	w.	Agent A., T. & S. F. R. R.
Taylor	....do	5,661	2	.....	.....	.....	.....	.....	.....	.....	0.52	.....	0.38	7.5	4	18	4	6	sw.	Agent E. P. & S. W. R. R.
Trementina	San Miguel	5,000	3	.....	.....	.....	.....	.....	.....	.....	1.47	.....	1.15	8.5	5	5	14	9	s.	Miss Alice Blake.
Tucumcari	Quay	4,194	6	41.0	.....	75	3	4	22	39	1.70	.....	1.00	7.5	5	16	8	4	sw.	John F. Seaman.
Valley	Union	5,000	6	.....	.....	.....	.....	.....	.....	.....	2.39	.....	1.90	18.0	5	16	6	6	s.	Miss M. L. Payne.
Vermejo Park	Colfax	7,600	6	27.8	.....	64	1	− 16	22	46	1.19	.....	0.35	10.5	8	14	11	3	w.	H. W. Adams.
Wagon Mound (near)	Mora	6,300	2	29.4	.....	64	3	− 19	23	49	1.43	.....	1.03	7.5	3	15	5	8	sw.	Guy L. Barnes.
Texas.																				
Amarillo	Potter	3,676	19	38.6	+ 1.4	77	1	7	22	37	2.88	+ 2.00	1.84	7.3	7	18	5	5	se.	U. S. Weather Bureau
Archer City	Archer	.....	1	.....	.....	.....	.....	.....	.....	.....	1.77	.....	0.93	0.0	7	11	8	9	n.	Chas. H. Thuman.
Arthur City	Lamar	590	19	.....	.....	.....	.....	.....	.....	.....	3.90	+ 1.62	1.50	0.0	7	10	5	13	n.	V. V. Bright.
Bonham	Fannin	566	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. A. Lovelace.
Canadian	Hemphill	2,339	4	42.1	.....	85	1	8	22	48	7.66	.....	4.00	0.5	7	16	5	7	n.	Canadian Academy.
Childress	Childress	1,869	18	.....	.....	.....	.....	.....	.....	.....	5.24	.....	3.64	.....	3	7[d]	5[d]	12[d]	.....	W. E. Davis.
Chillicothe	Hardeman	1,406	3	.....	.....	.....	.....	.....	.....	.....	3.89	.....	2.24	0.0	5	10	9	9	ne.	A. B. Conner.
Clarendon	Donley	2,719	6	43.8	.....	83	1	11	22	40	5.67	.....	2.59	2.0	7	15	6	7	nw.	J. B. McClelland.

TABLE 1.—*Climatological data for February, 1911. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas—Continued.																				
Clarksville	Red River	442	19	54.7	+ 4.8	86	1	19	22	41	4.85	+ 0.17	1.60	0.0	7	5	10	13		J. W. O'Neill.
Claude	Armstrong	3,397	6								4.28		1.61	1.5	5					Ft. W. & D. C. Ry.
Dalhart§	Dallam	3,998	6	31.5		72	1	− 6	22	54	0.54		0.30	2.0	3	6	15	7	n.	F. L. Kennard.
Denison	Grayson		3								3.62		1.60	0.0	5	6	5	17	n.	E. B. Wilson.
Finley	Bowie		1								4.59		1.80	0.0	6	14	6	14	s.	Robt. L. Smith.
Henrietta	Clay	915	19	47.7	+ 4.9	92	1	18	23	47	2.28	+ 1.23	0.97	0.0	6	6	3	19	n.	C. K. Brown.
Hereford	Deaf Smith	3,750	6																	A. C. Elliott.
Lewis Ferry	Bowie		2								5.06		1.00	0.0	8	8	4	16	e.	P. G. Ruff.
Memphis	Hall	2,067	6	44.4		85	2	14	22	45	4.95		1.55	T.	7	14	8	6		Ft. W. & D. C. Ry.
Miami	Roberts	2,743	5	41.8		83	1	8	22	45	5.01		3.02	3.0	5	17	6	11	n.	J. E. Kinney.
Mobeetie	Wheeler		17								5.50	+ 4.95	3.00	2.0		9	10	11	n.	R. A. Choate.
Nazareth	Castro		5	39.8		80	1	12	20	40	3.60		1.95	5.0	5	15	8	8	w.	Rev. P. A. Kaelin.
Ochiltree	Ochiltree		3								4.10		1.50		5					S. J. Allen.
Pampa	Gray	3,226	2	41.2		80	5	3	22	50	5.00		1.75		6					B. E. Finley.
Paris	Lamar	592	22	52.0	+ 8.2	85	1	19	22†	36	3.21	+ 1.15	1.32	T.	9	7	8	16	n.	Robert A. Miller.
Plemons	Hutchinson		4	37.8		77	1†	1	22	52	2.33		1.65	7.5	6	15	6	9	n.	C. S. Solomon.
Quanah	Hardeman	1,563	6	45.2		89	1	14	21†	38	3.75		2.70	0.0	3	12	3	16	n.	Wm. H. Crawford.
Ringo Crossing	Hopkins		1								5.61		2.00	0.0	6	6[a]	5[a]	18[a]	sw.	H. J. Palmer.
Romero	Hartley		1	36.0		74	12	− 2	22	50	1.54		0.90	10.0	5	13	5	10	s.	R. S. Chamberlain.
Texline	Dallam	4,694	6					− 3	22		1.45		0.60	12.2	5	10	4	14	n.	Ft. W. & D. C. Ry.
Tulia	Swisher	3,501	13	42.2		82	1	10	22	40	5.43	+ 4.48	2.88	4.0	5	4	8	6	n.	Lou Mulhall.
Wichita Falls	Wichita	958	16								1.83	+ 0.86	0.70	0.0	10	15	0	13	s.	R. A. Thompson.
Winfield	Titus		1								5.12		2.00	0.0	7	6	6	16	se.	J. C. Bostick.
Kansas.																				
Alden	Rice	1,684	1								4.04		0.92	8.0	6	11	0	14	n.	L. B. Wait.
Anthony	Harper	1,329	14	39.8		80	1	12	21	44	4.61	+ 3.61	1.37	4.0	8	13	4	11	ne.	R. H. Beebe.
Ashland	Clark	1,951	23			76	1†	5	22	48[f]	5.16	+ 4.47	2.36	1.2	7	12	9	7	n.	C. W. Carson.
Burlington	Coffey	1,010	18	39.1	+ 9.1	77	1	9	21	47	4.40	+ 3.01	1.28	7.5	8	9	11	8	s.	O. E. Sanford.
Chanute	Neosho	940	7	39.8		76	1	11	21	42	8.26		3.47	11.0	9	3	14	11	nw.	Chas. W. Brown.
Cimarron	Gray	2,700	5	31.0		77	12	− 7	22	42	4.55		2.00	8.2	5	9	11	8	nw.	Fred Mallonee.
Coldwater	Comanche	2,090	14	37.0	+ 3.8	74	1	3	22	38	4.45	+ 3.71	1.78	6.0	6	14	5	9	n.	J. L. Stanley.
Columbus	Cherokee	898	21	41.1	+ 8.1	84	1	12	22	38	3.53	+ 1.38	1.72	2.0	10	14	7	7	sw.	O. E. Skinner.
Coolidge	Hamilton	3,348	14	29.8	+ 0.1	74	11	− 11	22	64	1.59	+ 1.15	0.65	8.0	6	14	7	7	ne.	W. R. Padley.
Cottonwood Falls	Chase	1,234	7	37.6		75	1	7	21	39	5.21		1.80	5.8	9	12	3	12	n.	E. B. Greene.
Council Grove	Morris	1,234	2																	Jas. Sharp.
Cunningham	Kingman	1,680	27	38.0	+ 6.7	80	1	7	22	46	6.13	+ 5.41	2.94	5.0	6	13	5	10	ne.	W. H. Morton.
Dodge City	Ford	2,513	37	33.1	+ 2.0	75	12	− 3	22	37	2.94	+ 2.23	1.28	12.2	8	13	8	7	nw.	U. S. Weather Bureau.
El Dorado	Butler	1,291	9	39.0		77	1	10	21	38	4.72		1.77	7.5	7	14	4	10	n.	W. Y. Miller.
Ellinwood	Barton	1,790	36	36.8	+ 7.7	76	12	0	22	47	5.92	+ 4.90	1.79	15.2	8	9	12	7	s.	Martin Musil.
Emporia	Lyons	1,138	30	38.6	+ 7.7	72	15	7	21	35	4.79	+ 3.50	1.41	9.0	8	13	7	8	n.	W. H. Boyles.
Eureka	Greenwood	1,079	15	38.4[f]		79	1	10	21	47[k]	4.63	+ 3.42	1.73	10.0	9	16	1	11	nw.	T. C. Peffer.
Fall River	do	925	15	40.1	+ 6.7	83	1	12	21†	48	5.52	+ 4.10	2.25	10.0	10	12	8	8	n.	J. McDaniel.
Fargo	Seward		1								2.85		0.95	14.0	7	17	0	11	n.	N. B. Swink.
Fredonia	Wilson	864	8	41.0		83	1	12	21†	52	5.26		2.53	2.5	11	14	5	9	ne.	B. W. Holmes.
Garden City	Finney	2,836	22	31.4	+ 2.2	78	12	− 8	23†	46	3.53	+ 2.71	1.10	10.0	7	8	12	8	s.	B. F. Stocks.
Great Bend	Barton	1,850	2																	I. Pritchard.
Greensburg	Kiowa	2,235	4	35.6		75	1	− 1	22	38	4.96		2.06	10.0	6	18	3	7	n.	C. C. Raymond.
Grenola	Elk	1,116	23	40.6	+ 9.0	83	1	11	21	51	4.84	+ 3.49	1.95	4.0	8	12	5	11	ne.	W. H. Lawyer.
Howard§	do	1,112	4								4.71		2.04	4.5	7	13	5	10	n.	J. W. Eby.
Hugoton	Stevens		7	32.2		82	12	− 10	23	53	2.72		0.80	14.5	8	13	8	7	se.	E. M. Anderson.
Hutchinson	Reno	1,535	21	36.9	+ 5.9	76	1	7	21	43	6.38	+ 5.04	2.35	5.8	7	14	3	11	ne.	E. S. Webster.
Independence	Montgomery	800	37	42.1	+ 7.0	86	1	14	22	49	5.67	+ 3.68	2.84	3.5	9	9	6	13	s.	F. L. Kenoyer.
Iola	Allen	984	5	38.6	+ 6.6	80	1	11	21	43	4.77	+ 3.66	1.71	13.2	9	13	6	9	ne.	U. S. Weather Bureau.
Irene	Hamilton	3,440	1	30.4		78	12	− 9	22	61	1.77		0.64	11.5	5	16	3	10	nw.	N. M. Herbig.
Jetmore	Hodgeman	2,268	10	35.7		82	12	− 4	22	55	2.71	+ 2.15	1.30	6.0	6	16	12	6	ne.	James Aiken.
Kingman	Kingman	1,504	3	38.9		77	1	9	21	45	6.23		2.10	8.0	6	13	6	9	nw.	B. B. Anawalt.
La Crosse	Rush	2,061	9			80	12	3	21	60[b]	3.11		1.31	8.0	8	11	1	6	se.	Rodney Torrey.
Lakin	Kearney	2,993	21	31.2	+ 1.7	77	12	− 8	22	50	1.80	+ 0.98	0.65	13.0	5	12	8	8	ne.	C. H. Longstreth.
Larned	Pawnee	2,090	26	34.2		78	12	− 2	22	41	4.50	+ 3.80	1.59	12.3	7	10	4	8	n.	H. H. Wolcott.
Lebo	Coffey	1,138	25	36.5	+ 6.2	75	1	7	21	36	5.29	+ 3.74	1.55	9.5	10	15	4	9	s.	J. J. Bowman.
Le Roy	do	990	2								4.45		1.52	7.0	7	20	0	8	nw.	F. W. Schmitt.
Liberal	Seward	2,843	4	34.2		78	1	− 3	22	45	3.96		1.42	10.5	7	11	2	15	sw.	Dr. R. T. Nichols.
Macksville	Stafford	2,032	22	35.4	+ 4.1	72	12	− 1	22	46	4.42	+ 3.78	1.90	9.5	7	10	9	9	ne.	Mrs. Nelia Poling.
McPherson	McPherson	1,495	22	35.0	+ 5.7	74	1	4	21	39	6.02	+ 4.83	1.77	8.5	7	12	7	9	ne.	Ed. F. Haberlein.
Madison	Greenwood	1,074	10	36.8		77	1	7	21	46	4.79	+ 3.13	1.33	7.3	11	11	7	10	nw.	C. A. David.
Marion	Marion	1,310	18	36.4	+ 7.4	76	1	5	21	38	6.78	+ 5.62	2.32	7.0	7	9	11	8	s.	Jerry Forney.
Medicine Lodge	Barber	1,259	18	38.0	+ 4.4	78	1	9	22	48	5.65	+ 4.86	1.88	4.2	7	15	5	8	ne.	S. P. Garrison.
Medora	Reno	1,484	2																	M. L. Rickenbrode.
Mount Hope	Sedgwick	1,410	14								5.88	+ 4.82	1.90	5.0	7	12	4	12	n.	H. N. Renfrew.
Neosho Rapids	Lyons	1,092	6								3.39		1.19	4.0	6	14	0	14	n.	W. H. McMullin.
Ness City	Ness	2,260	18								2.10	+ 1.29	0.75	7.0	6					J. K. Barnd.
Newton	Harvey	1,454	14	37.9	+ 7.7	76	1	8	21	37	6.16	+ 5.20	1.89	8.0	8	15	5	8	n.	H. A. Brush.
Norwich	Kingman	1,496	15	39.4	+ 5.2	76	1	10	21	44	5.63	+ 4.84	1.47	5.0	8	11	7	10	ne.	N. I. Farris.
Oswego	Labette	899	17	42.6	+ 8.0	87	1	12	22	44	3.94	+ 2.19	1.96	2.0	9	7	11	10	ne.	Jas. M. Currigan.
Plains	Meade	2,766	1	35.9		80	1	− 2	22	47	3.07		1.57	7.0	5	14	4	3		E. J. Henning.
Pratt	Pratt	1,950	16	35.4	+ 4.0	75	1	4	22	45	5.57	+ 5.07	2.41	9.5	6	15	0	13	n.	A. J. Van Vranken.
Rome	Sumner	1,218	25	40.8	+ 7.2	82	1	13	21	43	3.99	+ 2.76	1.71	4.0	8	16	2	10	n.	D. M. Adams.
Sedan	Chautauqua	834	26	41.0	+ 7.3	84	1	12	22	44	5.71	+ 4.17	3.14	11.0	8	14	4	10	n.	A. Y. Buckles.
Toronto	Woodson	1,040	14	38.2	+ 7.3	85	1	10	21	52	7.30	+ 5.54	2.75	12.0	7	16	2	10	n.	M. A. Webb.
Ulysses	Grant	3,027	20	33.6	+ 2.3	77	12	− 5	20	48	1.80	+ 1.22	0.54	9.0	5	11	6	9	ne.	H. Rhoades.
Walnut	Crawford	940	9	40.6		83	1	11	22	42	5.60		2.55	8.0	9	15	5	8	sw.	R. C. Harlan.
Wellington	Sumner	1,225	15	38.8[i]	+ 5.0	75[i]	15	11	22	35[i]	4.08	+ 2.97	1.80	2.0	9	7	2	11	n.	E. O. G. Kelly.
Wichita	Sedgwick	1,377	24	37.6	+ 4.6	75	1	10	21	38	4.23	+ 3.16	2.15	6.4	10	10	9	9	ne.	U. S. Weather Bureau.
Winfield	Cowley	1,124	17	40.0	+ 7.7	80	1	10	22	46	4.95	+ 3.71	1.85	2.0	5	20	0	8	n.	M. B. Light.
Yates Center	Woodson	1,068	32	38.6	+ 8.0	81	1	8	22	41	4.74	+ 2.98	1.69	12.5	9	10	4	13	ne.	J. W. Tipton.
Oklahoma.																				
Ada	Pontotoc	1,001	3	48.0		90	1	15	22	36	3.79		2.38	T.	7	7	3	18	n.	R. J. Brooks.
Alva	Woods	1,350	6	40.4		85	1	12	22	41	4.58		2.33	3.5	6				s.	L. W. Sandefur.
Apache	Caddo	1,255	2	46.1		91	1	15	22	46	3.90		1.70	0.0	8	13	5	10	s.	G. D. Teeter.
Arapaho	Custer	1,575	17	47.4	+10.3	89	1	13		46[b]	4.34	+ 3.71	2.18	0.8	8	13	5	10	n.	J. C. Brown.
Ardmore	Carter	872	10	48.6	+ 5.8	92	1	16	22	38	4.09	+ 2.28	1.65	0.0	7	12	4	12	n.	H. T. Nisbett.
Bartlesville	Washington	687	3	43.8		89	1	16	21†	44	4.86		2.66	0.5	7	10	7	11	nw.	Dr. A. P. Owens.
Beaver	Beaver	2,500	15	36.8	+ 2.5	85	1	1	22	43	4.64	+ 4.23	2.04	8.0	6	18	5	5	s.	W. C. Frayer.
Blackburn	Pawnee	800	10	44.4	+ 7.8	90	1	13	22	43	3.58	+ 1.53	1.50	T.	8	12	5	11	n.	John Landis.
Cache	Comanche	1,350	5	43.9		89		13		49[a]	2.53		1.03	0.0	4	11	7	10	n.	Mrs. Frank Rush.
Calvin	Hughes	713	6								2.62		1.30	0.0	7	13	0	15	n.	Thomas Purcell.
Chandler	Lincoln	865	10																	Chas. L. Kern.

TABLE 1.—*Climatological data for February, 1911. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oklahoma—Continued.																				
Chattanooga	Comanche	1,150	5	47.0	.....	92	1	14	22	55	2.09	.....	1.20	0.0	5	7	12	9	n.	Squire Humble.
Chickasha	Grady	1,091	10	47.0	+ 6.0	90	1	14	22	41	2.26	+ 1.23	1.23	0.0	6	22	2	4	n.	J. C. Good.
Cloud Chief	Washita	1,400	9	46.0	.....	93	1	14	22	49	3.88	.....	2.56	0.7	6	9	10	9	n.	J. P. Stutzman.
Durant	Bryan	643	10	49.6	+ 7.7	88	1	19	22†	37	4.70	+ 2.71	2.19	0.0	7	13	4	11	n.	Nelson Hoak.
Eldorado	Jackson	1,456	4	46.6	.....	91	1	14	22	42	4.15	.....	2.05	T.	6	7	15	6	se.	T. W. Lanham.
El Reno	Canadian	1,400	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rose E. Walker.
Enid	Garfield	1,269	10	41.0	+ 4.3	81	1	15	22	46	3.22	+ 2.23	2.00	0.0	7	15	7	6	n.	Uri B. Worcester.
Erick	Beckham	2,058	6	44.7	.....	86	....	10	....	41[a]	3.49	.....	2.00	0.2	6	12	10	5	s.	A. W. Hanes.
Fairland	Ottawa	839	11	45.0	+ 8.1	88	....	13	....	48[a]	2.33	+ 0.79	1.00	T.	7	7	13	8	s.	C. W. Prier.
Fort Gibson	Muskogee	556	6	.....	.....	.....	.....	.....	.....	.....	2.23	.....	1.35	T.	5	12	1	15	n.	John T. Welsh.
Frederick	Tillman	1,293	5	47.1	.....	92	1	16	22	44	4.13	.....	2.55	0.0	9	8	6	14	n.	B. B. Bradley.
Gage	Ellis	2,136	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Holmes.
Goodwell	Texas	3,300	1	35.4	.....	79	....	0	20†	44[e]	1.77	.....	0.79	9.5	6	14	5	9	ne.	S. W. Block.
Guthrie	Logan	1,000	18	44.4	+ 6.6	93	1	15	9†	52	2.38	+ 1.41	1.30	0.0	7	14	0	14	n.	S. E. Snyder.
Guymon	Texas	3,133	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Mordt.
Harrington	Roger Mills	2,200	7	42.0	.....	84	1	8	22	45	5.14	.....	2.35	0.0	5	7	7	14	nw.	T. Compton.
Hartshorne	Pittsburg	700	12	51.4	+ 8.2	90	1	16	22	46	3.92	+ 1.28	1.70	0.0	5	12	5	11	s.	Robt. Holmes.
Healdton	Carter	900	17	48.0	+ 6.2	92	1	14	22	45	3.53	+ 2.26	2.15	0.0	8	9	12	7	n.	C. H. Heald.
Helena	Alfalfa	1,396	3	42.6	.....	87	1	13	22	42	2.91	.....	1.05	3.8	6	15	5	8	n.	R. E. Ellis.
Hennessey	Kingfisher	1,166	16	47.0	+ 8.8	94	....	18	....	47[a]	4.69	+ 3.39	2.90	2.0	8	9	14	4	n.	Mrs. M. C. Parks.
Hobart	Kiowa	1,396	8	46.1	.....	87	1	15	22	43	3.03	.....	1.87	T.	6	5	14	9	s.	Roy Benedict.
Holdenville	Hughes	900	10	45.8	+ 6.1	90	1	16	22	42	2.76	+ 1.32	1.24	0.0	8	11	11	6	s.	Mary Rutherford.
Hooker	Texas	3,038	5	34.4	.....	80	12	0	22	49	2.78	.....	1.15	12.0	7	8	1	19	n.	H. N. Kelly.
Hurley	Cimarron	4,200	3	28.2	.....	74	12	−11	22	51	1.83	.....	1.00	14.3	7	6	17	5	sw.	Dr. C. W. Meyers.
Idabel	McCurtain	474	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson	Grant	1,062	17	39.8	+ 4.4	87	1	12	9	47	4.09	+ 3.27	1.76	0.0	9	11	7	10	n.	T. E. Beck.
Kenton	Cimarron	4,000	10	35.8	0.0	82	3†	− 5	20†	60	1.31	+ 0.67	0.50	8.5	8	14	3	11	n.	Wm. M. Guy.
Kingfisher	Kingfisher	1,046	14	45.4	+ 6.9	90	1	16	9†	46	4.26	+ 2.99	2.78	T.	7	7	11	10	n.	J. C. Cross.
McAlester	Pittsburg	698	15	50.8	.....	91	1	11	22	36	2.69	+ 0.43	1.13	0.0	8	9	3	16	n.	Wm. Noble.
McComb	Pottawattomie	1,200	17	45.2	+ 5.0	87	1	14	22	34	0.90	+ 0.21	0.90	T.	1	4	18	6	s.	J. E. McNair.
Mangum	Greer	1,585	18	46.0	+ 4.7	79	1	14	22	44	4.61	+ 3.54	2.30	0.0	5	7	12	9	ne.	F. D. Dodson.
Marlow	Stephens	1,292	10	45.7	+ 6.4	89	1	15	21	40	1.95	+ 0.77	1.10	0.0	6	7	3	18	se.	Wm. B. Anthony.
Meeker	Lincoln	1,030	17	44.8	+ 6.2	91	1	17	22	41	1.98	+ 0.92	1.55	0.0	3	14	4	10	s.	Dr. J. H. Baugh.
Muskogee	Muskogee	614	12	47.3	+ 8.0	90	1	14	22	35	2.25	+ 0.80	1.00	T.	6	14	3	11	n.	J. Harry Randall.
Mutual	Woodward	.....	3	40.4	.....	87	1	8	23	46	4.38	.....	1.45	2.0	4	14	4	10	n.	Thos. Martin.
Neola	Caddo	1,500	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. N. Schooling.
Newkirk	Kay	1,149	13	42.7	+ 7.2	85	1	13	21†	50	4.79	+ 3.67	2.20	T.	7	15	7	6	s.	P. H. Allright & Co.
Norman	Cleveland	1,171	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	D. W. Ohern.
Oakwood	Dewey	1,854	1	40.8	.....	86	1	10	22	42	3.34	.....	1.52	4.0	10	12	5	11	s.	Dr. F. P. Osborn.
O'Keene	Blaine	1,194	7	44.0	.....	89	1	14	22	43	3.88	.....	2.06	2.1	9	13	7	8	s.	Dr. L. H. Murdoch.
Oklahoma	Oklahoma	1,247	20	44.0	+ 5.5	90	1	14	22	38	2.05	+ 1.07	1.05	0.2	10	10	8	10	n.	U. S. Weather Bureau.
Okmulgee	Okmulgee	752	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. L. Maynard.
Pauls Valley	Garvin	880	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. M. Foss.
Pawhuska	Osage	918	11	46.0	+ 8.2	90	1	12	9	56	4.07	+ 2.30	1.70	T.	9	10	12	6	n.	R. C. Block.
Perry	Noble	920	12	43.8	+ 7.1	91	1	13	21	45	2.67	+ 1.49	1.17	0.2	9	12	5	11	n.	J. A. Douglass.
Ravia	Johnson	796	8	50.0	.....	91	1	16	22	42	3.11	.....	1.30	0.0	7	11	2	15	n.	R. G. Guptill.
Sac and Fox Agency	Lincoln	900	18	46.4	+ 7.5	90	1	15	22	47	2.33	+ 1.30	1.00	0.0	6	15	4	9	n.	M. R. Gayle.
Shawnee	Pottawattomie	1,041	10	43.8	+ 4.2	90	1	13	22	41	2.26	+ 0.98	1.21	T.	8	10	9	9	se.	Mrs. Kate Chatman.
Snyder	Kiowa	1,356	4	47.2	.....	91	1	16	22	42	2.81	.....	1.71	0.0	6	13	9	6	n.	Dr. W. C. Woodward.
Stillwater	Payne	880	18	42.8	+ 5.4	90	1	14	22	47	2.52	+ 0.44	1.59	0.0	8	12	2	14	sw.	C. L. McArthur.
Tulsa	Tulsa	700	22	43.3	.....	90	1	14	22	44	2.23	+ 0.97	0.80	T.	7	6	15	7	n.	Dr. H. M. Hutchinson.
Vinita	Craig	698	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. E. Lahman.
Wagoner	Wagoner	588	14	45.0	+ 4.5	88	1	14	22	35	1.81	+ 0.56	1.14	T.	8	10	4	14	n.	S. L. Hatfield.
Waukomis	Garfield	1,258	14	44.1	+ 6.0	91	1	16	22	45	4.41	+ 3.49	2.47	2.0	8	17	4	7	ne.	R. C. Shades.
Waurika	Jefferson	988	1	49.0	.....	92	1	17	22	40	1.75	.....	0.75	0.0	8	8	8	12	se.	B. A. Swindler.
Weatherford	Custer	1,639	10	42.2	+ 3.4	89	1	13	23	46	3.75	+ 3.17	2.85	T.	8	12	6	10	n.	M. D. Reed.
Webbers Falls	Muskogee	479	12	46.6	+ 6.4	80	16	15	22	36	2.96	+ 1.33	1.03	0.0	5	6	13	9	se.	B. D. Boulineau.
Whiteagle	Kay	945	7	42.8	.....	90	1	16	9†	53	3.62	.....	2.50	3.0	6	10	4	14	n.	Irvin G. Dillon.
Woodward	Woodward	1,893	8	39.8	.....	84	1	6	22	45	8.09	.....	3.29	3.0	9	15	5	8	nw.	R. A. Boyle.
Missouri.																				
Belle	Maries	.....	19	39.4	+ 7.7	83	1†	7	21	60	2.80	+ 0.18	0.85	5.0	6	6[b]	11[b]	9[b]	n.[b]	A. J. Wofford.
Birchtree	Shannon	1,200	18	42.0	+ 8.2	85	1	13	21†	45	4.18	+ 1.21	1.50	1.0	5	16	1	11	n.[a]	V. H. Kirkendall.
Cape Girardeau §§	Cape Girardeau	305	6	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.38	T.	7	10	5	13	n.	D. L. Albert.
Caruthersville	Pemiscot	.....	21	46.8	+10.0	83	15†	17	22	43	2.68	− 1.58	1.48	T.	7	14	1	13	n.	H. E. Averill.
Cassville	Barry	.....	...	42.7	.....	86	1	10	22	53	3.17	.....	2.08	T.	6	13	8	7	s.	Mrs. Zuma Bloomer.
Dean	McDonald	.....	12	41.0	+ 5.0	86	1	8	22†	51	2.54	+ 0.72	0.82	T.	6	21	0	7	.....	H. E. Dean.
Doniphan	Ripley	440	7	42.8	.....	78	1†	16	22	41	3.40	.....	1.60	T.	8	17	2	9	s.	W. W. Martin.
Gano	Dent	.....	8	41.2	.....	85	1	9	21	47	3.18	.....	1.28	6.5	7	12	8	8	nw.	A. C. Leech.
Goodland	Iron	900	6	40.9	.....	85	1	3	21	56	3.75	.....	2.00	2.0	4	11	7	8	s.	F. M. Adams.
Greenville	Wayne	.....	17	43.0	+ 9.4	80	1†	15	22	47	3.98	+ 0.87	1.61	0.4	8	8	17	3	s.	A. G. Templeton.
Hollister	Taney	1,000	...	44.8	.....	86	1	14	22	48	4.90	.....	1.80	0.5	7	16	0	12	se.	W. P. Chapman.
Ironton §§	Iron	925	32	40.2	+ 7.1	83	1	12	21	50	3.42	− 0.05	1.42	7.0	7	9	4	15	nw.	W. H. Delano.
Jackson	Cape Girardeau	458	20	43.0	+ 8.6	80	16	15	22	42	3.32	0.0	1.27	3.2	7	7	5	16	n.	L. M. Bean.
Joplin	Jasper	979	32	43.4	+ 9.6	84	1	13	22	43	2.20	− 0.11	1.25	T.	8	14[b]	0[b]	12[b]	s.	Miss Ruth Smith.
Koshkonong	Oregon	911	11	44.8	+ 8.9	86	1	14	22	40	3.27	− 0.06	1.24	T.	7	10	9	9	nw.	J. W. Hitt.
Lamar §§	Barton	964	31	40.4	+ 6.3	86	1	14	22†	42	3.75	+ 1.40	1.04	1.0	7	9	9	10	ne.	E. H. Adams.
Marble Hill	Bollinger	420	19	40.0	+ 7.4	80	1†	14	21	48	3.92	+ 0.22	1.60	4.0	6	13	8	7	n.	A. F. Hendrix.
Mountaingrove	Wright	1,490	12	41.2	+ 8.4	81	1	9	21†	44	3.75	+ 1.04	1.57	1.2	5	11	6	11	nw.	Mo. Fruit Exp. Station.
Mount Vernon	Lawrence	1,480	33	43.1	+10.0	80	15	13	22	38	3.42	+ 0.66	1.15	1.2	5	18	2	8	sw.	J. R. White & Son.
Neosho	Newton	1,023	28	43.4	+ 7.5	85	1	12	22	43	2.67	+ 0.22	0.95	T.	8	13	4	11	s.	W. O. Buck.
New Madrid §§	New Madrid	285	17	.....	.....	.....	.....	.....	.....	.....	3.05	− 1.32	1.07	0.0	10	8	4	16	n.	Miss Josie Smith.
Oakfield	Franklin	793	18	39.8	+ 8.4	85	1	12	21†	52	2.67	+ 0.09	0.89	9.0	7	8	11	9	s.	E. E. Steines.
Olden	Howell	1,246	21	42.8	+ 8.3	84	1	11	21†	52	3.80	+ 0.57	1.25	0.5	6	10	10	8	nw.	J. D. Evans.
Perryville	Perry	582	2	42.4	.....	78	1	14	21	39	2.23	.....	1.80	0.0	4	17	0	11	n.	Superintendent of Schools.
Rolla	Phelps	1,092	30	40.4	+ 4.3	84	1	8	21†	53	3.47	+ 1.06	1.40	10.6	9	15	4	9	ne.	Prof. P. J. Wilkins.
Springfield	Greene	1,350	24	40.1	+ 6.5	84	1	10	22	38	3.21	+ 0.94	1.48	.....	8	10	9	9	s.	U. S. Weather Bureau.
Steelville	Crawford	746	15	42.6[d]	.....	86[d]	1	11[d]	9	55[d]	3.60	+ 1.16	1.48	7.0	6	8[g]	5[g]	8[g]	nw.[g]	Edwin Pumphrey.
Kentucky.																				
Blandville	Ballard	445	29	43.4	+ 7.0	78	16	12	22	31	3.59	− 1.17	1.93	0.4	11	10	4	14	nw.	E. W. Horr.
Lynnville	Graves	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tennessee.																				
Arlington	Shelby	.....	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. T. B. Etheridge.
Bolivar	Hardeman	450	24	46.2	+ 6.6	77	15	19	22	43	3.59	− 0.50	1.42	T.	10	9	2	17	n.	Miss M. A. Smith.
Brownsville	Haywood	361	26	46.8	.....	77	16	20	22	33	3.29	.....	0.80	T.	7	9	10	9	n.	Miss Hattie N. Moses.
Covington	Tipton	311	24	47.4	+ 5.1	75	16	20	22	30	3.14	− 1.30	0.90	0.0	8	9	1	18	s.	J. S. Ruffin.
Dyersburg	Dyer	310	28	47.6	+ 7.8	80	16	19	22	32	2.29	− 1.91	0.65	0.0	5	13	2	13	.....	Miss M. A. Sinclair.
Jackson	Madison	450	18	48.0	+ 6.9	83	15	18	22	43	2.83	− 0.61	0.69	0.0	11	14	3	11	nw.	Prof. S. A. Robert.

TABLE 1.—*Climatological data for February, 1911. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted.)		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Tennessee—Cont'd.																				
Kenton	Obion	325	9	46.2	.....	80	16	18	22	38	2.97	.....	1.33	T.	14	9	4	15	n.	G. S. Martin.
Memphis	Shelby	409	40	41.5	+ 6.1	79	16	20	22	27	3.48	− 0.87	1.34	T.	11	9	3	16	ne.	U. S. Weather Bureau.
Milan	Gibson	440	28	.....	.....	.....	.....	19	23	.....	2.43	− 2.66	.....	T.	.....	.....	.....	.....	.....	O. F. Cantwell.
Trenton	do	345	28	46.4	+ 6.5	80	15†	19	22	42	3.33	− 1.35	1.36	T.	8	13	4	11	sw.	Prof. F. L. Dennison.
Union City	Obion	360	13	46.2	.....	79	16	19	22	39	2.60	.....	1.06	0.0	12	11	7	10	s.	J. B. Kimzey.
Arkansas.																				
Alicia	Lawrence	.....	7	44.8	.....	78	....	18	....	38[e]	2.85	.....	1.55	0.0	3	13	9	6	.....	McCullough & Guelck.
Amity	Clark	250	19	53.0	+11.7	82	1	19	22	38	3.84	− 0.08	1.97	0.0	8	9	6	13	ne.	Prof. S. M. Sampson.
Arkadelphia (near)	do	250	4	53.4	.....	81	1	20	22	32	6.85	.....	2.28	0.0	10	10	5	13	sw.	J. A. Ross.
Arkansas City	Desha	145	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. C. Blundell.
Batesville	Independence	271	6	.....	.....	.....	.....	.....	.....	.....	2.79	.....	1.42	1.0	7	.....	.....	.....	.....	Lelia I. Teter.
Bee Branch	Van Buren	.....	19	49.0	+ 8.7	83	1	15	22	44	2.70	− 0.51	1.39	T.	8	8	2	18	.....	J. E. Scanlan.
Benton	Saline	283	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. B. Jackson.
Bentonville	Benton	1,303	6	43.6	+ 5.1	84	1	12	22	33	3.06	+ 0.54	1.74	1.0	10	11	11	6	s.	U. S. Weather Bureau.
Bergman	Boone	1,324	15	41.0	+ 6.5	82	1	7	22	42	4.29	+ 1.42	1.95	1.3	6	13	5	10	nw.	John T. Maxey.
Black Rock	Lawrence	259	7	.....	.....	.....	.....	.....	.....	.....	2.96	.....	0.89	T.	7	.....	.....	.....	.....	S. J. Howe.
Brinkley	Monroe	226	25	49.0	+ 7.2	83	15†	20	22†	42	4.95	+ 1.24	2.84	0.0	9	.....	.....	.....	.....	H. L. D. Whitson.
Calico Rock	Izard	361	7	.....	.....	.....	.....	.....	.....	.....	2.78	.....	1.00	0.0	6	.....	.....	.....	.....	W. H. Stoner.
Camden	Ouachita	158	26	56.6	+10.9	84	1	23	23	42	6.46	+ 2.41	1.46	0.0	11	.....	.....	.....	.....	R. H. Quarterman.
Centerpoint	Howard	470	11	54.0	+ 8.4	84	1	20	22	34	5.00	+ 0.98	2.50	0.0	8	9	5	14	se.	J. M. Huddleston.
Clarendon	Monroe	171	7	.....	.....	.....	.....	.....	.....	.....	4.94	.....	1.90	0.0	11	.....	.....	.....	.....	Mrs. B. E. Bishop.
Conway	Faulkner	309	28	49.9	+ 7.9	83	1	19	22	42	3.87	− 0.17	1.99	2.5	10	7	10	11	se.	G. H. Burr.
Corning	Clay	293	19	46.8	+11.8	80	1†	18	22	41	2.71	− 1.13	1.23	0.4	10	7	5	16	s.	Jacob Brobst.
Dardanelle	Yell	330	25	48.4	.....	87	1	19	22	46	4.56	+ 1.32	2.44	1.0	9	.....	.....	.....	.....	A. Bernard.
Dodd City	Marion	1,175	30	45.0	+ 7.1	85	....	13	....	46[e]	4.75	+ 1.47	2.00	1.5	6	.....	.....	.....	.....	Neal Dodd.
Earl	Crittenden	223	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. J. Moss.
Eldorado	Union	265	7	54.3	.....	81	1†	23	22	33	3.86	.....	1.82	0.0	11	.....	.....	.....	.....	Jeff. J. Babb.
England	Lonoke	.....	5	51.2	.....	80	1†	20	22	37	6.66	.....	4.20	T.	9	13	3	12	s.	J. C. Chenault.
Eureka Springs	Carroll	1,465	9	45.9	.....	83	1	11	22	42	4.18	.....	4.25	0.7	7	7	15	6	ne.	G. W. Nichoalds.
Fayetteville	Washington	1,451	22	46.6	+ 8.4	84	1	11	22	42	3.61	+ 1.17	3.71	0.2	6	8	10	10	sw.	University of Arkansas.
Fort Smith	Sebastian	481	29	49.3	+ 7.5	87	1	17	22	36	4.57	+ 1.83	1.73	3.0	10	8	9	11	e.	U. S. Weather Bureau.
Fulton	Hempsted	264	7	.....	.....	.....	.....	.....	.....	.....	7.10	.....	2.00	0.0	8	.....	.....	.....	.....	B. C. Logan.
Hardy	Sharp	643	13	45.2	+ 7.6	83	1	14	22	37	3.01	− 0.30	1.45	0.5	13	7	7	14	sw.	C. A. Caywood.
Helena	Phillips	182	26	49.8	+ 5.7	82	15	21	23	40	4.12	− 0.75	1.12	0.0	10	.....	.....	.....	.....	B. F. Modisett.
Hot Springs	Garland	600	5	51.8	.....	82	1	18	22	39	4.77	.....	2.40	0.0	7	15	0	13	nw.	Hot Springs Water Co.
Huttig	Union	85	4	56.2	.....	82	1†	24	22	34	5.24	.....	1.50	0.0	12	3	10	15	.....	C. A. Berry.
Jonesboro	Craighead	345	16	47.8	+ 9.1	82	15†	15	21†	47	2.80	− 1.41	1.55	T.	5	3	20	5	se.	Benedictine Sisters.
Junction	Union	.....	18	55.9	+11.4	80	1	24	21	26	2.50	− 1.38	1.10	0.0	3	7	4	17	sw.	J. A. Lowderback.
Lake Farm	Jefferson	195	4	53.0	.....	82	1	19	22	35	4.67	.....	1.60	0.0	9	10	8	10	s.	R. H. Gillispie.
Lewisville	Lafayette	262	8	55.8	.....	82	....	22	....	36[a]	6.44	.....	1.90	0.0	8	10	5	13	.....	F. W. Youmans.
Little Rock	Pulaski	357	32	50.6	+ 6.5	80	1	20	22	27	4.26	+ 0.08	1.93	T.	12	8	6	14	e.	U. S. Weather Bureau.
Lutherville	Johnson	775	14	44.8	+ 5.2	84	1	15	22	37	3.77	+ 0.42	1.74	2.0	9	7	9	12	ne.	G. H. Hentschel.
Malvern	Hot Spring	277	24	51.0	+ 7.9	80	1	20	22	38	5.12	+ 1.85	2.10	0.0	9	.....	.....	.....	.....	Miss L. C. Smith.
Mammoth Spring	Fulton	512	7	44.4	.....	84	1	11	21	49	2.89	.....	1.08	0.1	8	10	11	7	.....	F. Wallick.
Marked Tree	Poinsett	229	7	.....	.....	.....	.....	.....	.....	.....	3.77	.....	1.24	T.	6	.....	.....	.....	.....	L. Smith.
Mena	Polk	1,100	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. R. St. John.
Newport	Jackson	231	27	46.9	+ 7.7	80	16	18	22	39	2.38	− 1.59	0.99	0.0	9	.....	.....	.....	.....	Chas. Sprigg.
Ozark	Franklin	377	20	50.7	+ 9.6	84	3	16	22	33	3.89	+ 1.29	2.12	1.0	5	15	8	5	e.	R. M. Adams.
Pine Bluff	Jefferson	215	23	53.4	+ 8.4	81	1	21	22	32	5.30	+ 1.16	2.11	0.0	10	.....	.....	.....	.....	J. M. Hudson.
Pocahontas	Randolph	.....	19	47.4	+11.7	82	....	16	....	43[b]	2.70	− 0.94	1.30	0.0	7	9	11	8	.....	Benedictine Sisters.
Pond	Benton	1,250	14	44.6	+ 8.9	81	1	7	22	46	2.96	+ 1.28	1.04	0.1	7	17	6	5	sw.	A. F. Stevens.
Portland	Ashley	122	2	54.4	.....	82	....	27	....	31[d]	5.13	.....	1.45	0.0	13	.....	.....	.....	.....	L. W. Gregory.
Prescott	Nevada	327	23	53.4	+ 8.7	83	1	20	22	43	6.55	+ 3.10	1.44	0.0	11	.....	.....	.....	.....	A. M. Ellesworth.
Rogers	Benton	1,385	20	44.8	+ 8.7	84	1	11	22	43	2.41	+ 0.54	1.63	0.3	7	10	5	13	s.	Carl A. Starck.
Springbank	Miller	182	4	.....	.....	.....	.....	.....	.....	.....	5.35	.....	2.04	0.0	11	.....	.....	.....	.....	G. Field.
Stuttgart	Arkansas	495	24	52.6	+ 9.7	81	1	21	22	37	4.80	+ 0.89	1.26	0.0	10	12	7	9	n.	H. A. Buerkle.
Subiaco	Logan	1,050	14	50.2	+10.4	78	1†	17	22	34	3.40	+ 0.56	2.33	T.	6	12	5	11	ne.	New Subiaco Abbey.
Swain	Newton	.....	.....	41.7	.....	78	....	9	....	34[b]	5.50	.....	2.27	1.5	12	11	5	12	n.	George Paxton.
Texarkana	Miller	332	27	54.4	+ 6.8	81	1	23	22	30	5.72	+ 3.22	3.20	0.0	9	.....	.....	.....	.....	D. E. Moore.
Warren	Bradley	304	16	54.8	+11.4	81	1	23	22	32	6.54	+ 2.15	2.07	0.0	9	.....	.....	.....	.....	W. J. Savage.
Whitecliffs	Little River	206	7	.....	.....	.....	.....	.....	.....	.....	7.20	.....	1.95	0.0	9	.....	.....	.....	.....	John E. Payton.
Wiggs	Garland	.....	18	51.9	+ 9.9	82	1	11	22	39	4.12	+ 0.10	1.28	0.0	12	6	13	9	sw.	S. D. Jester.
Wynne	Cross	250	3	50.3	.....	86	1	18	21	41	4.33	.....	0.99	0.0	10	.....	.....	.....	.....	John Seals.
Mississippi.																				
Anguilla	Sharkey	107	3	56.6	.....	80	1†	25	23	31	4.51	.....	1.06	0.0	10	6	9	13	sw.	E. W. Cook.
Austin	Tunica	200	15	52.2	+ 9.2	82	15	22	22	39	5.03	+ 0.71	1.23	0.0	9	11	3	14	s.	H. J. Irvine.
Batesville	Panola	230	24	50.9	+ 8.0	83	15	22	22	37	4.48	+ 0.40	1.22	0.0	11	12	1	15	e.	J. M. Cox.
Big Creek	Calhoun	.....	.....	53.4	.....	80	16	19	22	35	6.49	.....	.....	0.0	8	7	8	13	s.	J. P. Havens.
Byhalia	Marshall	390	2	.....	.....	.....	.....	.....	.....	.....	4.51	.....	1.52	T.	9	8	9	11	n.	Tallahatchie Drng. Com.
Canton	Madison	222	21	57.4	+ 9.1	83	15	26	22	34	2.67	− 2.90	0.91	0.0	7	4	15	9	se.	Dr. G. W. Smith-Vaniz.
Charleston	Tallahatchie	.....	1	.....	.....	.....	.....	.....	.....	.....	5.81	.....	1.48	0.0	8	.....	.....	.....	.....	W. B. Burke.
Clarksdale	Coahoma	177	4	51.8	.....	80	1†	23	22†	36	4.95	.....	1.26	0.0	11	9	1	18	s.	A. C. Tuttle.
Coffeeville	Yalobusha	241	2	.....	.....	.....	.....	.....	.....	.....	6.62	.....	1.95	0.0	10	8	15	5	ne.	Tallahatchie Drng. Com.
Corinth	Alcorn	470	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. A. Candler.
Crenshaw	Panola	187	2	.....	.....	.....	.....	.....	.....	.....	3.81	.....	1.00	0.0	11	8[b]	12[b]	6[b]	.....	Tallahatchie Drng. Com.
Denmark	Lafayette	.....	2	.....	.....	.....	.....	.....	.....	.....	5.51	.....	1.15	0.0	11	.....	.....	.....	.....	Do.
Duck Hill	Montgomery	.....	12	53.9	+ 9.1	80	16	22	22	33	6.12	+ 1.18	2.07	0.0	9	7	8	13	s.	W. H. Eskridge.
Edwards	Hinds	222	24	58.6	+ 8.2	83	15†	26	22†	30	3.49	− 1.41	1.20	0.0	7	14	7	7	s.	E. F. Farr.
Enid	Tallahatchie	.....	2	.....	.....	.....	.....	.....	.....	.....	4.12	.....	1.10	0.0	7	.....	.....	.....	sw.	Tallahatchie Drng. Com.
Fayette	Jefferson	270	10	60.1	+10.8	82	8†	22	23	35	1.23	− 4.20	0.44	0.0	5	8	12	8	s.	T. L. Darden.
Greenville	Washington	126	24	55.9	+ 9.0	83	16	25	22	31	5.67	+ 1.24	2.60	0.0	9	9	1	18	se.	F. L. Harbison.
Greenwood	Leflore	140	11	54.5	+ 9.3	81	2	24	22†	38	6.02	+ 1.18	2.32	0.0	10	7	6	15	s.	J. H. Stephen.
Grenada	Grenada	124	2	.....	.....	.....	.....	.....	.....	.....	6.08	.....	2.10	0.0	7	15	5	8	ne.	Tallahatchie Drng. Com.
Hernando	De Soto	391	23	49.5	+ 9.4	83	15	20	22	38	3.70	.....	1.00	T.	8	8	10	10	ne.	W. F. Wood.
Hickory Flat	Benton	435	2	.....	.....	.....	.....	.....	.....	.....	4.90	.....	1.42	0.0	12	4	15	9	s.	Tallahatchie Drng. Com.
Holly Springs	Marshall	600	24	48.1	+ 7.2	78	16	20	22	36	4.77	+ 0.58	1.51	0.0	11	8	3	17	se.	L. B. Mosby.
Kosciusko	Attala	430	21	54.4	+ 7.5	79	16†	23	22	47	5.71	− 0.80	1.94	0.0	12	10	8	10	ne.	E. L. Lucas.
Lake Cormorant	De Soto	206	2	.....	.....	.....	.....	.....	.....	.....	4.73	.....	1.20	T.	10	6	13	9	se.	Tallahatchie Drng. Com.
Lula	Coahoma	182	2	.....	.....	.....	.....	.....	.....	.....	3.77	.....	0.71	0.0	9	3	7	18	.....	Do.
Malone	Marshall	.....	2	.....	.....	.....	.....	.....	.....	.....	4.14	.....	0.68	0.0	13	.....	.....	.....	.....	Do.
Marks	Quitman	163	2	.....	.....	.....	.....	.....	.....	.....	5.04	.....	1.45	0.0	10	.....	.....	.....	.....	Do.
Natchez	Adams	206	23	60.8	+ 9.3	86	15†	28	22	41	0.91	− 4.53	0.39	0.0	7	5	5	18	s.	J. C. Weir, jr.
New Albany	Union	398	2	.....	.....	.....	.....	.....	.....	.....	4.97	.....	1.31	T.	9	5	17	6	n.	Tallahatchie Drng. Com.
Pontotoc	Pontotoc	475	22	51.2	+ 7.1	79	1	19	22	31	6.37	+ 1.90	1.10	0.0	9	6	16	6	se.	Dr. C. W. Bolton.
Port Gibson	Claiborne	116	23	58.1	+ 8.9	83	15	23	23	44	1.49	− 3.40	1.49	0.0	8	4	3	21	s.	H. H. Crisler.
Rosedale	Bolivar	143	3	52.0	.....	78	15	23	22	32	5.48	.....	1.85	0.0	8	7	4	17	nw.	T. J. Murray.
Senatobia	Tate	284	2	.....	.....	.....	.....	.....	.....	.....	4.09	.....	0.91	0.0	12	16	0	12	n.	Tallahatchie Drng. Com.

TABLE 1.—*Climatological data for February, 1911. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Mississippi—Cont'd.																				
Shoccoe	Madison		8	56.8	.....	82	15	22	22	35	2.99	− 2.30	0.97	0.0	6	15	3	10	s.	J. C. Pitchford.
Suffolk	Franklin		10	60.6	+10.6	84	15	25	23	36	0.98	− 4.94	0.64	0.0	6	15	6	7	se.	Prof. Geo. H. Kent.
Swan Lake	Tallahatchie	148	6	.....	.....	.....	.....	.....	.....	.....	5.46	.....	1.40	0.0	9	.....	.....	.....	.....	B. F. Saunders.
Tchula	Holmes	130	6	56.2	.....	82	15	21	24	34	4.74	.....	0.99	0.0	9	3	12	13	n.	Dr. M. P. Winkler.
University	Lafayette	502	18	51.5	+ 7.5	79	16	20	22	33	4.70	+ 0.19	1.05	T.	8	10	6	12	s.	Prof. J. H. Dorroh.
Utica	Hinds	287	7	58.6	.....	82	....	23	22	34[b]	2.05	.....	0.78	0.0	4	13[b]	5[b]	8[b]	s.	Dr. J. B. Dudley.
Vicksburg	Warren	247	40	58.4	+ 7.5	81	15	28	22	28	4.64	+ 0.03	2.26	0.0	9	8	8	12	se.	U. S. Weather Bureau.
Water Valley	Yalobusha	300	22	53.4	+ 8.6	83	17	19	22	35	5.42	+ 0.49	1.40	T.	9	15	5	8	s.	Miss Loule Erikson.
Woodville	Wilkinson	560	18	61.8	+11.7	84	15	27	23	30	1.13	− 4.47	0.94	0.0	4	8	17	3	sw.	James E. Lee.
Yazoo City	Yazoo	116	17	56.0	+10.4	83	15	23	22	37	4.33	− 0.44	1.86	0.0	9	11	2	15	e.	W. H. Courts.
Louisiana.																				
Abbeville	Vermilion	18	23	63.2	+ 8.3	85	15	26	23	36	1.27	− 3.26	0.55	0.0	3	12	8	8	se.	C. J. Edwards.
Alexandria	Rapides	77	23	59.4	+ 8.5	82	7†	24	23†	38	1.40	− 4.74	0.70	0.0	6	8	0	20	s.	Nellie Graham.
Amite	Tangipahoa	130	23	61.4	+ 8.5	83	7	21	23	44	0.12	− 6.34	0.12	0.0	1	7	21	0	s.	Lulu M. Wentz.
Baton Rouge	East Baton Rouge.	60	23	63.4	+10.2	84	15	34	22	26	0.72	− 4.16	0.53	0.0	3	14	2	12	se.	Elmo M. Bott.
Burnside §	Ascension	20	11	63.1	+ 9.8	85	8	26	23	36	0.66	− 5.09	0.57	0.0	3	.....	.....	.....	se.	C. S. McFarland.
Burrwood	Plaquemines	1	23	64.0	+ 7.3	78	14	40	22†	25	0.58	− 3.59	0.28	0.0	3	17	4	7	se.	Graham Myers.
Cades §	St. Martin	.....	1	61.9	.....	82	15	28	23	43	1.17	.....	0.55	0.0	3	19	4	5	s.	C. E. Smedes.
Calhoun	Ouachita	180	23	57.4	+ 9.8	83	15	23	23	31	4.47	− 0.08	2.06	0.0	8	7	8	13	sw.	N. L. Experiment Station.
Cameron	Cameron	6	18	63.1	+ 8.5	76	5†	30	22	33	0.63	− 2.66	0.63	0.0	1	5	11	12	se.	State Biologic Station.
Carrollton	Orleans	7	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Loyola College.
Cheneyville	Rapides	67	23	60.5	+ 9.5	86	5†	26	23	42	0.42	− 4.86	0.22	0.0	2	9	8	11	s.	Walter I. Tanner.
Cinclare	West Baton Rouge	.....	1	61.2	.....	83	15	26	22	36	0.59	.....	0.46	0.0	3	8	16	4	sw.	Cinclare Cent. Fac'y.
Clinton	East Feliciana	113	23	62.1	+ 8.9	85	14	25	23	36	0.51	− 4.85	0.37	0.0	4	4	4	20	n.	John A. White.
Collinston	Morehouse	65	10	58.7	+11.1	85	3†	26	22†	31	4.04	− 2.09	1.70	0.0	7	5	8	15	s.	John B. Reily.
Covington	St. Tammany	39	19	61.8	+10.7	83	6	25	23†	48	1.67	− 4.21	0.57	0.0	6	4	4	20	s.	Lucille Champagne.
Dodson	Winn	.....	2	57.8	.....	83	15	23	23	33	4.49	.....	2.18	0.0	8	6	10	12	s.	J. P. Lucas.
Donaldsonville	Ascension	33	23	66.4	+11.1	86	8	33	21	36	1.90	− 3.57	1.10	0.0	3	12	2	14	s.	John F. Park.
Farmerville	Union	177	23	54.5	+ 6.7	81	14	22	22	39[a]	3.62	− 0.65	1.60	0.0	6	2	9	17	s.	W. P. Chandler.
Ferriday	Concordia	.....	4	60.8	.....	83	7†	20	23	40	1.11	.....	0.50	0.0	3	18	0	10	s.	R. Z. Sclater.
Franklin	St. Mary	10	19	64.2	+10.6	88	15	27	23†	44	0.95	− 4.16	0.35	0.0	6	15	3	10	s.	J. M. Bonney.
Grand Cane	De Soto	302	15	55.0	+ 6.2	83	5	15	23	54	0.74	− 3.24	0.31	0.0	6	.....	.....	.....	.....	G. Foster Provost.
Grand Coteau	St. Landry	93	23	63.2	+ 8.6	85	14	27	23	36	1.17	− 3.68	0.85	0.0	5	10	11	7	sw.	St. Charles College.
Hammond	Tangipahoa	44	19	63.0	+10.2	85	6	22	23	44	1.31	− 3.53	0.63	0.0	4	21	0	7	sw.	C. C. Carr.
Houma	Terrebonne	.....	23	64.2	+ 8.8	84	7†	30	22	42	0.90	− 3.87	0.60	0.0	3	24	3	1	ne.	H. M. Foote.
Jena	Catahoula	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. A. Wilbanks.
Jennings	Calcasieu	30	14	62.0	+ 9.9	83	15	25	23	42	0.56	− 3.95	0.35	0.0	3	5	15	8	se.	J. F. Buch.
Lafayette	Lafayette	36	23	62.8	+ 8.8	85	14†	25	23	40	0.82	− 3.74	0.42	0.0	6	7	10	11	e.	J. J. Davidson.
Lake Charles	Calcasieu	22	23	60.5	+ 7.3	83	8	28	23	48	0.95	− 3.46	0.95	0.0	1	28	0	0	n.	Geo. Boudreaux.
Lakeside	Cameron	9	10	63.4	+10.5	84	15	30	23	33	0.90	.....	0.47	0.0	2	23	3	2	se.	Miss L. J. Nunemacher.
Lawrence	Plaquemines	6	20	62.8	+ 8.0	83	15	31	23	42	1.09	− 4.06	0.56	0.0	3	20	3	5	s.	H. C. Warmoth.
Leesville	Vernon	.....	4	61.0	.....	82	14†	20	23	37	1.14	.....	0.54	0.0	5	14	3	11	s.	C. M. McFarland.
Liberty Hill	Bienville	.....	23	58.2	+ 8.4	85	6	22	23	35	4.47	+ 0.23	1.10	0.0	8	7	6	15	s.	E. A. Crawford.
Logansport	De Soto	192	7	.....	.....	.....	.....	.....	.....	.....	3.28	.....	2.45	0.0	7	7	1	20	s.	Bettie M. Dennis.
Melville	St. Landry	45	23	61.4	+ 8.1	88	6	20	23†	52	0.93	− 4.14	0.65	0.0	4	11	1	16	se.	Chas. B. McNeill.
Minden	Webster	194	23	56.4	+ 8.0	85	6	21	23†	39	3.15	− 0.23	1.48	0.0	9	6	7	15	s.	Ethel Fort.
Monroe	Ouachita	82	23	55.3	+ 5.9	87	6	20	23	44	5.59	− 1.19	2.00	0.0	8	8	5	15	e.	John G. Welch.
Morgan City	St. Mary	14	5	.....	.....	.....	.....	.....	.....	.....	1.08	.....	0.51	0.0	4	11	8	9	e.	Virgil E. Kinsey.
Newellton	Tensas	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John D. Fultz.
New Iberia	Iberia	15	23	63.2	+ 8.5	82	6†	29	23	29	1.06	− 3.37	0.78	0.0	4	7	18	3	sw.	Mrs. John A. Gebert.
New Orleans (1)	Orleans	51	40	63.6	+ 7.3	81	7	35	22	26	1.35	− 3.12	0.55	0.0	5	7	8	13	se.	U. S. Weather Bureau.
New Orleans (2)	.....do	18	23	64.5	+ 9.6	84	7†	34	22†	37	1.46	− 4.06	0.48	0.0	7	10	9	9	s.	Sugar Experiment Station.
Opelousas	St. Landry	83	19	62.9	+11.1	86	15	24	23†	43	0.96	− 4.11	0.75	0.0	4	9	2	17	s.	Andrew Moresi.
Paradis	St. Charles	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Louisiana Meadows Co.
Pearl River	St. Tammany	29	5	.....	.....	.....	.....	.....	.....	.....	1.68	.....	0.78	0.0	6	11	11	6	s.	Geo. F. Bancks.
Plain Dealing	Bossier	268	19	56.2	+ 9.2	86	1	21	23	36	2.87	− 0.56	0.88	0.0	9	6	7	15	se.	Leon Sanders.
Rayne	Acadia	44	19	67.2	+14.0	85	15	26	23	33	1.06	− 4.03	0.62	0.0	3	11	0	17	s.	A. P. McNeil.
Reserve §	St. John the Baptist.	.....	10	63.2	+10.5	87	7	28	23	49	1.37	− 3.39	0.93	0.0	2	10	16	2	.....	Leon Godchaux Co. (Ltd.).
Robeline	Natchitoches	147	15	58.2	+ 9.9	87	7	19	23	39	2.12	− 2.51	0.68	0.0	5	7	4	17	s.	Ruby McCook.
Ruston	Lincoln	312	16	58.0	+10.7	85	1	25	22	29[a]	3.30	− 1.37	2.00	0.0	4	8	6	14	n.	J. C. H. McKinney.
St. Francisville	West Feliciana	115	8	57.8	.....	79	27†	26	23	37	1.25	.....	1.25	0.0	1	.....	.....	.....	.....	L. P. Kilbourne.
Schriever	Terrebonne	17	19	62.8	+ 8.5	85	7†	24	23	48	1.12	− 3.97	0.66	0.0	4	14	4	10	e.	Harriett F. Riviere.
Sheridan	Washington	.....	1	.....	.....	.....	.....	.....	.....	.....	0.80	.....	0.30	0.0	4	9	17	2	s.	D. A. Self.
Shreveport	Caddo	249	40	57.3	+ 7.3	82	6	26	22	33	1.79	− 1.82	0.80	0.0	8	8	3	17	s.	U. S. Weather Bureau.
Simmesport	Avoyelles	42	5	.....	.....	.....	.....	.....	.....	.....	0.43	.....	0.29	0.0	3	4	3	21	se.	C. T. Leigh.
Southern Univ. Farm	Jefferson	.....	14	.....	.....	.....	.....	.....	.....	.....	1.58	− 3.45	0.72	0.0	4	9	12	7	se.	F. L. St. Martin.
Sugartown	Calcasieu	.....	18	62.8	+11.4	81	16	28	21	32	1.26	− 4.53	0.78	0.0	2	3	22	3	.....	G. W. Richardson.
Tallulah	Madison	91	4	58.8	.....	82	1	19	23	45[a]	4.31	.....	1.90	0.0	5	5	17	6	.....	C. E. Speed.
Walker	Livingston	.....	1	64.0	.....	85	14	31	23	31	0.80	.....	0.40	0.0	2	10	14	4	ne.	H. C. Fondren.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from the observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 7, Lower Mississippi Valley.*

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Colorado.																														
Blaine	Cimarron														.20		.42		.10			.67			.27					1.66
Buena Vista	Arkansas																1.15	1.35			T.	T.					.33	.10		2.93
Calhan	Big Sandy				T.									T.			.28	.10	.35	.10							.25	.32	T.	1.40
Canon City‖	Arkansas																.11	.45		.43	.10						.33	.45	.05	1.92
Colorado Springs	Fountain				T.												.31	.08	.24	.10	.02					.45	.56	.05	T.	1.81
Cripple Creek	Oil Creek				.02												.24	.08	.20								.22	.02		0.78
Cuchara Camps	Cucharas																.32		.72	.07	.03	.02			.08	*	.04	.07	.22	1.57
Eads	Big Sandy																													
Fairview	St. Charles		.32														.52		.64						.70		.54			2.72
Fremont Exp. Sta.‖	Fountain				.02								T.			.22	.31	.08	.26	T.	.04	T.				.51	.12			1.56
Garfield	Little Arkansas	.15		.12	T.	.67							T.	.03			.11	.08	.35	.28	.07	.12				.08	.30	.27		2.63
Hamps	Big Sandy													.01			.15			.25								.40	.01	0.82
Hermit Lake	Grape Creek	.20			.22	.52						.30			.10	.11	.50	.47	.42	.12	.22					.15	.46	.56	.57	4.92
Hoehne (near)	Purgatoire				.10									.06			.15	.22	.70	.20		T.					.10	T.	.10	1.63
Holly	Arkansas													.02	.50		.15	.01	.05	.30									.07	1.10
La Junta	....do																													
Lake Moraine	Fountain	T.			.09	.22										T.	.35	.13	.21	.04		.03	.04			.05	.25	.14		1.55
Lamar	Arkansas													.44			.26	.03	.90										.20	1.83
Las Animas	....do				.10									.23			.27	.16	.47								.08	.19	.16	1.66
La Veta Pass	Cucharas				.28									.32			.17	.32	.60	.11	.23	.11				.34	.14	.12		2.74
Leadville	Arkansas	.01		T.	.05	.20							T.	T.	T.	.03	.17	.10	T.	T.	T.	T.	T.		T.	.05	.06	.14	.01	0.82
Limon (near)	Big Sandy													.10			T.		.13	.05							.20	.25		0.73
Madrid	Purgatoire				.04									.12			.10	.25	.48	.07		.03							.04	1.13
Marshall Pass	Arkansas				.08	.54							.04	.07			.07		.19			.06					.20			1.25
Monument	Fountain				T.	T.											*	.42		.70	T.	T.				*	.78			1.90
North Lake	Purgatoire			.18													.28	.40	.22	.09	.11						.13		.12	1.53
Pueblo	Arkansas				T.												.15	.05	.35	.05	.01	.01				.34	.14	.12		0.99
Rocky Ford (near)	....do																.16		.42							.03		.04		0.65
St. Elmo	Chalk Creek	.07		T.	.16	.25								.10			.20	.15	.30	.16	T.		.04		.18		.22	.24		2.07
Salida‖	Arkansas					.05											.05	1.20		.50		T.					.40	1.65	.20	4.05
Santa Clara	Huerfano	T.			T.	.02							T.	.08			.23	.40	.54	.11	T.	.08				T.	.18	T.	.02	1.66
Sheridan Lake	Arkansas													.24				.71										T.	.35	1.30
Stonewall	Purgatoire				T.	.04								T.			.09	.25	.36	.06	.01	T.					.04			0.85
Trinidad	....do				T.					T.							.02	.08	.86	.04	.01							.02	.03	1.06
Victor	Oil Creek				.03	.03								T.			.12		.42							T.	.32			0.92
Vilas	Cimarron												T.	.13	.25	.07	.19	.37	.04									.17		1.22
Wayne	Arkansas													T.			.03	.01	.44								.27	.43	.05	1.23
Westcliffe	Grape Creek													.03				.77	.10								.40		.12	1.42
Winfield	Clear Creek	.02		T.	.14	.03	T.						.02	T.	T.	.06	.10	.05	T.	.04	.04	.04	T.		T.	.01	.10	.23	.07	0.95
Woodman Sanatorium	Fountain				T.												.36	.04	.26	.06	T.	T.				T.	.42	.17	T.	1.31
Wortman	Arkansas	T.		T.	T.	.50	T.				T.		.16	T.	T.	.14	T.	.40	T.	T.	T.	.05	.02	T.	T.	.21	T.	T.	T.	1.48
New Mexico.																														
Abbott	Canadian													.08			.04	*	.32										.04	0.48
Albert	....do																*	.22	.37		T.							*	.26	0.85
Arch (near)	Red										.31							*	.68										T.	0.99
Aurora	Canadian				.07	.13								.08			.09	.24	.32			.11					.03		.10	1.17
Bell Ranch	....do				T.									.13				.28	.63		T.	.05						.02	.26	1.37
Black Lake	....do				.05									.02			.04	.15	.39		.08						.02		.09	0.84
Cabeza	....do				.01									.03				.05	.90	.05								.05	.45	1.54
Campana	....do													.08			.03	.14	.42		.04							.05	.19	0.95
Chacon	....do					.12											.12	.40	.87										.20	1.71
Cimarron (near)	....do				T.									.14			T.	.17	.60	.05	T.	.05						T.	.12	1.13
Clayton	....do																													
Clovis	Red																													
Cuervo	Canadian				T.													.04	1.30		T.	T.						T.	.85	2.19
Dawson	....do													.10		T.		.24	.56	.01	.01					.02	.05	.18		1.17
Dorsey (near)	....do				T.									T.				*	.70	.30							T.	T.	.05	1.05
Elizabethtown	....do				.18	.09												.25	.73							.45		*	.63	2.33
Folsom	Dry Cimarron													.05			.10	.30	1.05										.05	1.55
Fort Union	Canadian																*	.21	.30		.05	.07						T.	.28	0.91
Hayden	....do				T.									T.				.02	.40			.03						.20	.07	0.72
Johnsons Park	....do				T.									T.			.03	*	1.00		T.							T.	.10	1.13
Kappus	....do																.10			.15						.25		*	.75	1.25
Lake Alice	....do																.63	.33	.60		.15							.25		1.96
Logan	....do																	.10	.30			.10							.72	1.22
Los Alamos	....do															.02	.84	.07	.15									*	.28	1.36
Lykins (near)	Red										.13							.35	.37			.07							.26	1.18
Maxwell	Canadian													.09				*	.21			.04							.08	0.42
Melrose	Red																	.48	.22		T.	T.						.12	.45	1.27
Miami Ranch	Canadian																.06	*	1.26			.06							.10	1.48
Montoya	....do																	.20	.70									.01	.51	1.42
Mount Dora	....do													T.			T.	*	.14	.50		T.				T.			.05	0.69
Nara Visa	....do																T.	.07	.25										.51	0.83
Optimo	....do																													
Pasamonte	....do													.07				*	.80										.15	1.02
Raton	....do				T.									T.			.20	.30	.30								.08	.10	.45	1.43
Rociada	....do													*			*	*	*		*	1.39						*	.50	1.89
Rosebud	....do													.01				.05	.52										T.	0.58
Roy	....do													.24			.25		1.02	.12							.25			1.88
San Jon	....do				T.						T.			.01			T.	.19	*	.35		T.						T.	.64	1.19
Solano	....do													.07				.19	1.05	.01	.6	.03						.01	.14	1.51
Springer	....do													.05				.02	.70			.03							.04	0.84
Taylor	....do													.01				.07	.38										.06	0.52
Trementina	....do													T.				.05	1.15	T.	T.	.02					.05	.20		1.47
Tucumcari	....do													.06				.25	.75									.02	.62	1.70
Valley	Dry Cimarron												.32				.01	*	1.90		.16	T.						T.		2.39
Vermejo Park	Canadian				.20									.10			*	.30	.35	.05							.03	.16		1.19
Wagon Mound	....do				T.									T.				.18	1.03										.22	1.43
Texas.																														
Amarillo	Canadian				T.						.15						.46	1.61	.22	.15		T.						.03	.26	2.88
Archer City	Red								.02		.29	.33		T.				.12	.93									.06	.02	1.77
Arthur City‖	....do							.70	.10			1.00		.20		.20				1.50									.20	3.90
Bonham	....do																													
Canadian	Canadian										T.	.04		.02			.55	4.00	1.75	.05								T.	1.25	7.66
Childress	Red										.90					.70	T.	3.64	T.											5.24
Chillicothe	....do										.45	T.	T.	T.			T.	1.00	2.24	.02									.18	3.89
Clarendon	....do										.20	.20					.90	2.59	1.30		T.							.08	.40	5.67
Clarksville	....do								1.05	.1		.91		.36						1.60								.60	.18	4.85
Claude	....do										.15						.98	1.33	1.61		T.	T.						T.	.21	4.28
Dalhart‖	Canadian																.08	.16		.30										0.54
Denison‖	Red											.70			.02		1.20		.10	1.60									T.	3.62
Finley‖	....do						.30			1.2		.65			.22					1.80								.30		4.59
Henrietta‖	....do									.5		.70			.04				.97	.08									.34	2.28

TABLE 2.—*Daily precipitation for February, 1911. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Texas—Continued.																														
Hereford	Red						.50		.36	1.00		1.00			.30					1.00	T.							.60	.30	5.06
Lewis Ferry ‖	do										.30	.25					1.55	1.33	1.38							.04		.10	T.	4.95
Memphis	do										.04	T.					.50	3.02	1.15	T.		T.						T.	.30	5.01
Miami	Canadian																												‡	5.50
Mobeetie	Red										.42						.08	1.95	.55									*	.60	3.60
Nazareth	do																.50	1.50	.75	.50									.85	4.10
Ochiltree	Canadian										.15					.40	1.75	.65	1.35	.70										5.00
Pampa	do																													
Paris ‖	Red								.24	.09		.96	T.	.01	.20		T.		.01	1.32							.02		.36	3.21
Plemons	Canadian										.03			T.			.32	1.65	.25	.03								T.	.05	2.33
Quanah	Red										T.	.35						.70	2.70											3.75
Ringo Crossing ‖	do								1.20	.51		1.40			.47					2.00								.03		5.61
Romero	Canadian				T.						T.			T.			.01	.16	.45			T.						.02	.90	1.54
Texline ‖	do																	.33	.30	.60			.02					T.	.20	1.45
Tulia	Red										.40			T.			.26	2.88	1.49	T.		T.				T.			.40	5.43
Wichita Falls	do								.02			.55		.01		.11		.22	.70	.04						.02		.10	.06	1 83
Winfield	do					.40			1.00		.62			.14					2.00							T.	.36		.60	5.12
Kansas.																														
Alden	Arkansas													.92		*	*	*	3.08										.04	4.04
Anthony	do											.03		.17			.83	1.37	1.20	.13								.04	.84	4.61
Ashland	Cimarron													.41			.29	2.36	1.48	.10								.02	.50	5.16
Burlington	Neosho													.83			.15	.36	1.28		.72		.03			.27			.76	4.40
Chanute	do					.20					.25			.43	T.		.73	.45	3.47	.68						.33			1.72	8.26
Cimarron	Cimarron				T.									.45			.18	1.32	2.00								T.	.60		4.55
Coldwater	do				T.	T.						T.		.24	T.		.57	1.78	1.31	.03								T.	.52	4.45
Columbus	Neosho					.22						.08		.26		T.	.47	*	1.72	.40		T.				.10			.01	.27	3.53
Coolidge	Arkansas													.60			.05	.65	.12										.05	.12	1.59
Cottonwood Falls	Neosho													.45	.37		.68	1.80	1.11	.03						.15	.07		.55	5.21
Council Grove	do																													
Cunningham	Arkansas				T.									.25			1.24	2.94	1.20	.10						T.		T.	.40	6.13
Dodge City	do				.01									.36			.39	1.08	.70	.05								.09	.26	2.94
El Dorado	do											T.		.55			.28	1.77	1.09	.15		T.				.23			.65	4.72
Ellinwood	do				.01									1.03			.72	1.79	1.62	.05						T.		.38	.32	5.92
Emporia	Neosho													.69	.08		.99	1.41	.94	.02						.03			.63	4.79
Eureka	Verdigris					T.								.70	.14		.15	.46	1.73	.33						.04	.03		1.05	4.63
Fall River	do					.01						.01		1.10			.40	.40	2.25	.20						.10	.05	T.	1.00	5.52
Fargo	Cimarron				T.									.20			.30	.95	.40	.80								.10	.10	2.85
Fredonia	Verdigris					.08						.02		.66	.05		.38	.15	2.53	.36						.12	.05		.86	5.26
Garden City	Arkansas				T.	T.								.80			.53	.65	1.10	.10								.10	.25	3.53
Great Bend ‖	do																													
Greensburg	do													.50			.55	2.06	1.15	.10								T.	.60	4.96
Grenola	Verdigris					.08						.06	T.	.85			T.	.45	1.95	.08						.12		T.	1.25	4.84
Howard	do					T.						T.		.72	.18		.05	.34	2.04	.18		T.				T.		T.	1.20	4.71
Hugoton	Cimarron				.02									.12			.34	.74	.35	.80								.05	.30	2.72
Hutchinson	Arkansas													.48	.24		1.42	2.35	1.18	T.						.02			.69	6.38
Independence	Verdigris					.13						.03		.36			.48	.16	2.84	.42		T.				.20			1.05	5.67
Iola	Neosho					.02						T.		.61			.48	.36	1.64	.08	T.					.36		.25	.97	4.77
Irene	Arkansas				T.									.47			.21		.64	.25							T.	.20	T.	1.77
Jetmore	do													.30			.11	1.30	.70									.14	.16	2.71
Kingman	do													.20			1.72	2.10	1.25	.20									.76	6.23
La Crosse	do				.03	T.								.64	.12		.11	1.31	.50							T.		*	.40	3.11
Lakin	do				T.									.15	T.		T.	.65	.50									.20	.30	1.80
Larned	do													.78	T.		.50	1.59	1.00	.03								.30	.30	4.50
Lebo	Neosho					.08						T.		.90	.11		.30	1.55	1.13	.25						.25	.02	T.	.70	5.29
Le Roy ‖	do											T.			1.16		.12	.03	1.52	.97		T.					.27		.38	4.45
Liberal	Cimarron				T.									.37		.25	.87	1.42	.60								T.	.10	.35	3.96
Macksville	Arkansas													.42	T.		.78	1.90	1.05	.05								.02	.20	4.42
McPherson	do													.13	.87		1.48	1.77	1.34	.07						T.			.36	6.02
Madison	Verdigris					.18						.17		.70	.05		.05	1.29	1.33	.08						.13	.13		.68	4.79
Marion	Neosho					T.						T.		.28	.32		2.32	1.98	1.20	T.		T.				.23	T.		.45	6.78
Medicine Lodge	Arkansas											T.		.18			1.88	1.51	1.29	.04						.05		T.	.70	5.65
Medora	do																													
Mount Hope	do													.37			1.90	1.54	1.19	.09						.04			.75	5.88
Neosho Rapids ‖	Neosho	T.				T.									.70		.04	1.07	1.19	.17		T.					.22		T.	3.39
Ness City	Arkansas													.45			.50	.75	.28									*	.12	2.10
Newton	do													.19	.52		1.89	1.48	1.20	.15						.07			.66	6.16
Norwich	do					T.						T.	T.	.10	.15		1.19	1.47	1.45	.31						.10		T.	.86	5.63
Oswego	Neosho					.22						.06		.24			.22	*	1.96	.02		.11				.15			.96	3.94
Plains	Cimarron													.50			.30	1.57	.50										.20	3.07
Pratt	Arkansas			T.	T.									.11			.92	2.41	1.23	.50								T.	.40	5.57
Rome	do											.05		.42			.06	.60	1.71	.10						.03		T.	1.02	3.99
Sedan	Verdigris											.20		.70			.20	.25	3.14	.15						.12		T.	.95	5.71
Toronto	do													.97			.08	.27	2.33	.20						.70			2.75	7.30
Ulysses	Cimarron													T.			.54	.45	.50	.30								T.	.10	1.89
Walnut	Neosho					.11							T.	.33	.08		.50	.11	2.55	.67						.40		T.	.85	5.60
Wellington	Arkansas											.03	T.	.45	.08		.18	.70	1.80	.05		T.				.02		T.	.77	4.08
Wichita	do				T.							.01	T.	.21		.04	1.86	.64	.85	.01		T.				.10		.06	.45	4.23
Winfield	do													.60			.25	.60	1.65										1.85	4.95
Yates Center	Verdigris													1.04	.08		.17	.39	1.69	.22						.05	.10	T.	1.00	4.74
Oklahoma.																														
Ada	Canadian											.43		.20		.45		.20	2.38							.05			.08	3.79
Alva	Arkansas													T.	.08	T.	2.33	.98	.79	.10								T.	.30	4.58
Apache	Red											.31		.12	T.		.03	1.60	1.70	.02	T.							.07	.05	3.90
Arapaho	Washita											.30					.62	.81	2.18	.04		T.				.03		.13	.23	4.34
Ardmore ‖	Red									T.		.65		.04	.20		.38		1.10	1.65							.07		T.	4.09
Bartlesville	Arkansas						T.					.09		.38			.38	T.	2.66	.05						.40		T.	.90	4.86
Beaver	Canadian													.25			.60	1.10	2.04	.55							T.	.10	T.	4.64
Blackburn	Arkansas											.15		.61			.25	.20	1.50	.14						.06			.67	3.58
Cache	Red										.70			.08				.60	1.03	T.						T.		.12	T.	2.53
Calvin	Canadian											.44		T.	.23		.26		.30	1.30							.05		.04	2.62
Chandler ‖	do																													
Chattanooga	Red											.43						.30	1.20							.06			.10	2.09
Chickasha	Washita											.30		.05			T.	.45	1.23	T.						T.		.11	.12	2.26
Cloud Chief	do											.29					.07	.62	2.56							.27		T.	.07	3.88
Durant ‖	Red											.68		.02	.09		1.46		.20	2.19							T.		.06	4.70
Eldorado	do										.25	.20	T.				T.	1.50	2.05							.05		T.	.10	4.15
El Reno	Canadian																													
Enid ‖	Cimarron											.06			.50			.04	2.00	.50	.02								.10	3.22
Erick	Red										.04	.15				T.	.55	2.00										.10	.65	3.49
Fairland	Arkansas											.12		.22	.11				1.00	.45						.09			.34	2.33
Fort Gibson	do											.19			.22		.39	T.	T.	1.35	.08	T.	T.			T.		T.	2.23
Frederick	Red								T.		.12	.11	.01			.55		.73	2.55	.01						.04			.01	4.13
Gage	Canadian																													

TABLE 2.—*Daily precipitation for February, 1911. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Oklahoma—Continued.																														
Goodwell	Canadian				T.									T.			.03	.79	.30	.10							.05	.50		1.77
Guthrie	Cimarron											.20		.05			.18	.25	1.30							.05			.35	2.38
Guymon	Canadian																													
Harrington	Red										.35						2.35	.96	.80									.68		5.14
Hartshorne	Canadian													.12			1.70	.30		1.65						.15				3.92
Healdton	Red										T.	.98		.16		.05		.06	2.15	.06						.02			.05	3.53
Helena	Cimarron											.05		.05			.65	.46	1.05			T.				T.		T.	.65	2.91
Hennessey	do											.20	T.	.26				.46	2.90	.06						.16		.07	.58	4.69
Hobart	Red										T.	.22		T.		T.	.03	.75	1.87							.13		T.	.03	3.03
Holdenville	Canadian											.40		.03	.10		.30		.60	1.24	.05						.04			2.76
Hooker	do				T.	T.								.10			.33	1.15	.60	.20								.05	.35	2.78
Hurley	do													.20			.20	.20	1.00	.10								.03	.10	1.83
Idabel	Red																													
Jefferson	Arkansas				.05							.19		.42			.18	.53	1.76							.05		.04	.87	4.09
Kenton	Cimarron					T.								.22	.01		.22	.01	.50	.10		.05					T.	T.	.20	1.31
Kingfisher	do											.21		.15				.51	2.78	.03						.12			.46	4.26
McAlester	Canadian										.41			.09		.42		.26	1.13	.09						.03			.26	2.69
McComb	do													T.			.90	T.								T.		T.	T.	0.90
Mangum	Red											.38	T.			T.	.53	1.30	2.30	T.						T.		.10		4.61
Marlow	Washita											.40			.10		.02	T.	1.10	.15							T.		.18	1.95
Meeker	Canadian																.08		1.55										.35	1.98
Muskogee	Arkansas												.17		.13			.29		1.00	.58					T.			.08	2.25
Mutual	Canadian																1.45	.60	1.18										1.15	4.38
Neola	Washita																													
Newkirk	Arkansas				.34									.37				T.	.40	2.20	.05					.18			1.25	4.79
Norman	Canadian																													
Oakwood	do											.18	.02	.02			.09	.60	1.52	.20						.05		.10	.56	3.34
O'Keene	Cimarron		T.									.21		.03			.01	.66	2.06	.05						.05		.11	.70	3.88
Oklahoma	Canadian										.08	.08	T.	.13		.04	T.	.35	.77	.06		T.				.08		.06	.40	2.05
Okmulgee	do																													
Pauls Valley	do																													
Pawhuska	Arkansas				T.	.04						.06		.95			.90	.15	1.70	.11						.10		T.	.06	4.07
Perry	do											.14		.27			.03	.21	1.17	.06						.15		.04	.60	2.67
Ravia	Washita											.62		.15		.45	.24		1.30	.23									.12	3.11
Sac & Fox Agency	Canadian											.05		.75		.05		.10	1.00										.38	2.33
Shawnee	do											.20		.04	.15		.12		1.21	.41	T.						.06		.07	2.26
Snyder	Red											.36	.01			T.		.61	1.71							.09		T.	.03	2.81
Stillwater	Cimarron					T.						.13		.02	.23		.02		1.59	.31								.11		2.52
Tulsa	Arkansas											.13		.02	.45		.05		.70	.80							.08			2.23
Vinita	do																													
Wagoner	do											.14		.11		T.	.02	T.	1.14	.13	.01	T.				.01			.25	1.81
Waukomis	Cimarron					T.						.08		.30			T.	.48	2.47	.05						.08		.05	.90	4.41
Waurika	Red								.06	T.	.12	.40		.04				.22	.75	T.						.02			.14	1.75
Weatherford	Canadian											.27	.02		.10			.17	2.85	.08							.11		.15	3.75
Webbers Falls	Arkansas											.34			.34		.42			1.03	.83						T.			2.96
Whiteagle	do				T.							T.		.04				.03	2.50							.20		.04	.81	3.62
Woodward	Canadian					T.						.06	T.	.02		.04	3.29	1.83	1.72	.13								.10	.90	8.09
Missouri.																														
Belle	Meramec					T.	.10					T.			.41			.38	.85	.20						T.	.56		.30	2.80
Birchtree	Black													.28			1.40		.42	1.50									.58	4.18
Cape Girardeau	Mississippi						.08							T.	.12		.04		.01	.38	.18	.04							T.	0.85
Caruthersville	do			T.		T.	.33		.52			.10	T.	.05	.10				T.	1.48	T.	T.							.10	2.68
Cassville	White					T.						.08	T.	.30		.14			2.08	.18	T.	T.				T.			.39	3.17
Dean	Neosho											.13		T.	.35					.82	.70					.05			.43	2.54
Doniphan	Black			T.		T.	.25		T.			.12	T.	T.	.60		.11		.16	1.60							.21		.35	3.40
Gano	Meramec						.19								.56		.17		.38	1.28	.04						T.		.56	3.18
Goodland	Black														.96		.75			2.00							.04			3.75
Greenville	Mississippi					T.	.20					T.		.14	.24		1.20		.17	1.61							.27		.15	3.98
Hollister	White						.25					.10			.45		1.20	.50		1.80									.60	4.90
Ironton	Mississippi					T.	.05						T.	T.	.45		.75	T.	.17	1.42	.50	T.	T.				T.		.08	3.42
Jackson	do											.01		.35			1.05		1.27	.50						.04			.10	3.32
Joplin	Neosho						.01					.06			.06	.05	.08	.07	1.25	.62						T.				2.20
Koshkonong	Black				T.	T.	T.	.08				.07		T.	.33		1.10		.25	1.24	T.					T.			.20	3.27
Lamar	Neosho				T.	.36						T.		T.	.41		.82		.58	1.04	T.		T.				.07		.47	3.75
Marble Hill	Mississippi					.22									.35		1.35		.10							1.60			.30	3.92
Mountain Grove	White				T.							T.			.51		.61		.29	1.57						T.			.77	3.75
Mount Vernon	Neosho				T.							T.		.43			.09		.89	1.15						T.			.86	3.42
Neosho	do				T.							.04		T.	.48	.01	.17		.63	.95						.05			.34	2.67
New Madrid	Mississippi				.04		.40		.50				.09	T.	.30		.02			1.07	.57							.05		.01	3.05
Oakfield	Meramec					.18	.04					T.			.36		.22		.76	.89						T.			.22	2.67
Olden	White											T.			.55		.95		.75	1.25	.10								.20	3.80
Perryville	Mississippi						.01					T.			.02		.40		1.80											2.23
Rolla	Meramec					.03	.12					.03			.35		.09		.80	1.40	T.						.06		.59	3.47
Springfield	White				T.	.04						.03		.45			.04		1.16	.62	T.					T.	T.	.08	.79	3.21
Steelville	Meramec						.31					T.			.80		.05		.55	1.48									.41	3.60
Kentucky.																														
Blandville	Mississippi			.03		T.	.66	.05	.45			.06		.09					.13	1.93	.01						.06		.12	3.59
Lynville	do																													
Tennessee.																														
Arlington	Mississippi																													
Bolivar	do				.23		.75		1.21	.21		.12	.34	.01	.12						.58						.02			3.59
Brownsville	do			T.	.58		.48		.80			T.	.45	.25			T.			.27	.46						T.			3.29
Covington	do				.15		*		.90			.18	.06		.42					.68	.75									3.14
Dyersburg	do						.35		.35			T.	T.		.34					.60	.65									2.29
Jackson	do			.11	.12		.58	.02	.69	.04		.39		.02	.12					.68									.06	2.83
Kenton	do			.28	.28		.38	.01	.19			.14		.03	.15				.04	1.33	.02	.02					.04		.06	2.97
Memphis	do			.37		T.	.30	T.	1.33	.03		.48	T.	.02	.12				T.	.62						.01	.06		.14	3.48
Milan	do				.40				*						.23				1.50	.50							T.			2.43
Trenton	do			.11	.05		.57	.28	.55			.19		T.	.19		T.		T.	1.39	T.									3.33
Union City	do			.03			.33	.17	.47			.10		.05	.08				.20	1.00	.04						.03		.10	2.60
Arkansas.																														
Alicia	White							1.55				T.		T.	.40				T.	.90										2.85
Amity	Ouachita						T.		.39	.12		.78	T.	T.	.30	T.		T.	.04	1.97	T.					.06		T.	.18	3.84
Arkadelphia (near)	do						.18		2.28	.47		.69		.03	.28					1.91	.09					T.		.79	.13	6.85
Arkansas City	Mississippi																													
Batesville	White						.22		.48			.04	T.	.01	.38					1.42	.24									2.79
Bee Branch	Arkansas						.10		.30			.40		.10	.30				.10	1.30	T.					T.	.10		T.	2.70
Benton	Ouachita																													
Bentonville	Arkansas					T.						.09		.42		.08	.07		1.45	.36	.02	.02				.06		T.	.49	3.06
Bergman	White											.18			.49		1.28		.11	1.95									.28	4.29
Black Rock	do						.38		.67			.10	.04	T.	.46					.89	.42						T.			2.96
Brinkley	do				.20		.48		.68	.24		.33	.28		.40					1.40	.94						T.			4.95
Calico Rock	do						.35		.25			T.	T.	T.	.50		.10			1.00	.58	T.					T.			2.78

TABLE 2.—*Daily precipitation for February, 1911. District No. 7*—Continued.

Stations.	Watershed.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total.
Arkansas—Continued.																														
Camden	Ouachita						.49		.67	1.18		.68	.13		.18					1.40	.22					.05	1.30	.16	6.46
Center Point	Red					.60	.30		.70				.25					T.		2.50					.10		.25	.30	5.00
Clarendon	White		.02	.34		.55		.69	.42		.55	.20	T.	.22		T.			1.25	.65						.05			4.94
Conway	Arkansas				T.	.16	T.	.47			.71	.02		.38		.02		T.	1.99	.02					.05			.05	3.87
Corning	White		T.		T.	.36	T.	.28			.15		.05	.38		.04		.10	1.23	.04					T.	T.		.08	2.71
Dardanelle	Arkansas					.05		.54			.33	.17		.65		.20			2.44	.10						.08			4.56
Dodd City	White										.15			.40		1.90		*	2.00						T.			.30	4.75
Earl	St. Francis																													
Eldorado	Ouachita			.02		.33		T.	1.82		.27	.27	T.	.06	T.				.19	.13						.17	.51	.09	3.86
England	Arkansas				.77		.22	1.53	.17		.87		T.	.25					2.20	.50							.15	T.	6.66
Eureka Springs	White										.17			.53		.75		.51	1.74	T.					.10			.38	4.18
Fayetteville	do													.60		.59		.38	1.71						.09			.24	3.61
Fort Smith	Arkansas				T.					.01	.54		.35		1.58	.15		1.23	.46	T.					.07		.01	.17	4.57
Fulton	Red						.50		1.40	.90		.70		.30						2.00						.80		.50	7.10
Hardy	White				T.	.26	.04	.23			.09	.02	.05	.45		.07		.11	1.45	.02					.02			.20	3.01
Helena	Mississippi			.62		.34		.38	.74		.22	.58		.30					.30	.34							.30		4.12
Hot Springs	Ouachita				T.	.03		.86	.08					1.10		.28		T.	2.40						.02			T.	4.77
Huttig	do			.14		.09	.07	.12	1.23		.65		.02	.24					.63							.41	1.50	.14	5.24
Jonesboro	White										.70		.04						1.55							.01		.50	2.80
Junction	Ouachita		T.					T.	1.05										.35							1.10			2.50
Lake Farm	Arkansas		.11			.16		1.60	.50		.40		.10						1.10							.50	.20		4.67
Lewisville	Red		.01			.77		1.90	.10		.80		.31				T.	T.	1.40							T.	1.15		6.44
Little Rock	Arkansas		.03		.15		.32	.41	.04	.01	.53	T.	.30				T.	.03	1.90						.08		T.	.46	4.26
Lutherville	do					.28		.09			.50			.72		.34		.06	1.68						.06			.04	3.77
Malvern	Ouachita					.20		1.17	.25		.60	.10	T.	.40					2.10	.13						.17		T.	5.12
Mammoth Spring	White							.37			.08			.45		.40		.25	1.08						.03			.23	2.89
Marked Tree	St. Francis					.35		.65			.32			.45					1.24	.76					T.				3.77
Mena	Ouachita																													
Newport	White				.31		.45			.18	.15	.02	.25						.80	.19						.03			2.38
Ozark	Arkansas				T.						.43					.87		T.	2.12					.12			.35	3.89
Pine Bluff	do			.40		T.		1.15	.96		.30		T.	.15					.90	.80						.08	.40	.16	5.30
Pocahontas	White					.36		.28			.16		.50		.05			1.30	.05										2.70
Pond	Arkansas				T.						T.		T.	.43		.51	.65	*	1.04	T.	T.				.01			.32	2.96
Portland	Ouachita			.40		.11	.02	.28	1.33	.03	.09	.64	T.	.17						.51						.05	1.45	.05	5.13
Prescott	do					.22		1.44	1.27		.70	.02	T.	.37					1.30	.23						.08	.70	.22	6.55
Rogers	Arkansas										.06		.30	.08				.32	1.31	T.	T.				.03			.31	2.41
Springbank	Red					.58		.01	.61		.78	.04	T.	.27		T.			.80	.12						.03	2.04	.07	5.35
Stuttgart	Arkansas		.53		.17			1.26	.43		.80		.17					T.	1.26						T.	.08	.08	.02	4.80
Subiaco	do					.02	T.				.30		.40			.23			2.33						T.			.12	3.40
Swain	White					.04	T.	.38			.02		.03	.40	1.60			.60	2.27	.01					.05	.04		.06	5.50
Texarkana	Red					.18		.18	.85		.65			.35					3.20							.05	.20	.06	5.72
Warren	Ouachita			.50		.23		.59	2.07		.88			.18						.82							1.16	.11	6.54
Whitecliffs	Red					T.		1.95	.85		.85		T.	.23				T.	1.16	1.09						.05	.90	.12	7.20
Wiggs	Ouachita				T.	.07	T.	1.28	.11		.68			.42	T.	.03	T.	.08	.08	1.07	.09				.06		T.	.15	4.12
Wynne	St. Francis			.40		.54		.65	.05		.23	.20		.37					.86	.99						.04			4.33
Mississippi.																														
Anguilla	Yazoo		T.		.40		.07	.18	.50	1.06		.80			.28				.42							.20	.60		4.51
Austin	do				.55			.67	1.23	.55		.70			.47				.72								.06	.08	5.03
Batesville	do				.37		1.01	.03	.45	.77			.55	.01	.17					.49								.51	.12	4.48
Big Creek	do			T.	.50		.55		1.65			.63	T.		.27				.49							*	2.40	T.	6.49
Byhalia	do			.61			.67	.06	1.52	.30		.57			.15				.57							.06		T.	4.51
Canton	Big Black				.25				.05	.86		.41			.37				.36								.37		2.67
Charleston	Yazoo		.50			.33	1.48			.92		.45			.28				.65								1.20		5.81
Clarksdale	do				.78		1.17	.01	.36	1.26		.10	.37	.02	.14				T.							T.	.69	.05	4.95
Coffeeville	do				.22		.47		1.92	.39		.49		.03	.24				.19							.72	1.95		6.62
Corinth	Mississippi																													
Crenshaw	Yazoo		T.	.15		.42	.09	.70	.49		1.00			.14					.39						.05	.35	.03	3.81
Denmark	do			.12		1.15	.03	.82	.63		.58		.04	.18					.78						.04	1.14		5.51
Duck Hill	do				.80		.05	T.	.35	.94		.59			.15				.52						.65	2.07		6.12
Edwards	Big Black				T.				T.	.70		.55	.03	T.	.55	T.			.43	.03							1.20		3.49
Enid	Yazoo				.40		.50		.90	.60	T.	.56														.06	1.10	T.	4.12
Fayette	Mississippi				T.		T.			.44		.26	.06		.14				.32										1.23
Greenville	Yazoo				.21		.21		T.	1.83		.08	.45	.01	.14											.14	2.60	T.	5.67
Greenwood	do				.54		.20		T.	1.32	T.	.02	.66		.28					.56						.10	2.32	.02	6.02
Grenada	do								1.00	.78		1.50		.15					.30						.25	2.10	T.	6.08
Hernando	do				.26		.80		1.00	.45		.30	.27		.12					.50							T.		3.70
Hickory Flat	do				.09		1.01	.24	1.42	.40		.48	.02	.02	.24				.80						.08	.10	T.	4.90
Holly Springs	do				.46		.83		1.51	.52		.23	.47	.02	.08				.59						.05	.01		4.77
Kosciusko	Big Black				.59		.09	.35	1.01	1.94			.79	.01	.25	.03				.46							.09	.10	5.71
Lake Cormorant	Yazoo		T.	.71			.68	.18	1.20	.21		.58		.04	.18				.90	.05									4.73
Lula	do		.03	.71	.28	T.	.42	.51		.54				T.	.14				.56							T.	.58		3.77
Malone	do		T.		.21	.02	.67	.17	.84	.41		.68		.02	.21				.58						.10	.19	.04	4.14
Marks	do				.41		1.45		.85	.48		.48		T.	.16				.51						.02	.66	.02	5.04
Natchez	Mississippi							T.		.12	.03	.15	.09	.02	.11	T.				.39								T.	0.91
New Albany	Yazoo				.12	T.	1.02	.11	1.31	.51		.48		T.	.20				.67							T.	.55	T.	4.97
Pontotoc	do			.11		T.	.70	1.00	1.10			.21							.85						1.00	.80	.60		6.37
Port Gibson	Mississippi				.39			.03		.30		.36	.06		.03					.21							T.	.11	1.49
Rosedale	Yazoo				.20		.25		.98	1.85		.30	.28							.65							.97		5.48
Senatobia	do		T.		.14		.73	.19	.91	.39		.86	.03	.02	.15				.50							.13	.04	4.09
Shoccoe	Big Black				.44		T.	T.	T.	.97		.49			.24					.60							.25		2.99
Suffolk	Mississippi				T.			T.	.05	.01		.16	.06	T.	.06				.64								T.		0.98
Swan Lake	Yazoo			.93			.10	.20	.30	1.25				T.	.25				.20	.83							1.40		5.46
Tchula	do		T.		.59	T.	.25		.73	.99	T.	.83			.42				.53						.17	.23		4.74
University	do				.06		1.05	T.	.82	.53		.54		T.	.25				.69							.76			4.70
Utica	Mississippi									.78					.73					T.						.52	.02	2.05
Vicksburg	do			.04			.02		.65	.35	T.	.47	T.		.48			T.	.36	.01						2.26		4.64
Water Valley	Yazoo						.95	T.	.75	.25		.47	T.	.05					.90	T.					.15	1.40	.50	5.42
Woodville	Mississippi							T.				.08	.07						.94	.04									1.13
Yazoo City	Yazoo				.38		.04	.30	T.	1.86		.16	.64		.28					.62							T.	.05	4.33
Louisiana.																														
Abbeville	Coast							T.		.55		.17	T.						T.	.55									1.27
Alexandria	Red									.05	.08		.17		.19					.70	.21								1.40
Amite	Coast								T.	T.		T.		T.				T.		T.	.12								0.12
Baton Rouge	do							T.		.10			.09								.53								0.72
Burnside	do									.03		.06							.57										0.66
Burrwood	do									T.		T.	.18	.12						.28									0.58
Cades	do									.47		.15								.55									1.17
Calhoun	Ouachita			.08		T.		T.	.73	1.33	T.	.68			.24				T.	.59					T.	.66	.16		4.47
Cameron	Coast														T.						.63								0.63
Carrollton	do																													
Cheneyville	Red												.22		.20														0.42
Cinclare	Coast								.07			.06								.46									0.59
Clinton	do							T.			T.	T.	.07	.05	T.	T.				.02	.37	T.							0.51

TABLE 2.—*Daily precipitation for February, 1911. District No. 7*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Louisiana—Continued.																														
Collinston	Ouachita			T.					.20	1.44		1.70	T.		.22					T.						.33	.12	.03	4.04
Covington‖	Coast					T.			.40		.27		.14		.25					.04	.57								1.67
Dodson	Red				.12				2.18		T.	.64		.18						.27						.29	.68	.13	4.49
Donaldsonville‖	Coast						T.			.60			.20								1.10									1.90
Farmerville‖	Ouachita								1.60		.47	.23								.50						.67	.15		3.62
Ferriday	do									.13					.50					.48									1.11
Franklin‖	Coast									.15		.08	.20	.16	.01						.35									0.95
Grand Cane‖	Red								.10	.15	.01	.05			.12												.31			0.74
Grand Coteau	Coast									.04		.15	.10		.03					.85										1.17
Hammond	do									.63		.20		.10						.38										1.31
Houma	do									.20		.10								.60										0.90
Jena	Red																													
Jennings‖	Coast												.15						.06		.35									0.56
Lafayette‖	do							.06	.06	.14		.11		.03							.42									0.82
Lake Charles‖	do																			.95										0.95
Lakeside	do									.43										.47										0.90
Lawrence‖	do									.10	.43										.56									1.09
Leesville	Sabine									.10		.21			.18					.54						.03	.08			1.14
Liberty Hill	Red				.12				.59	1.10		.63			.24					.58						.58	.63			4.47
Logansport‖	Sabine									2.45		.07	.24							.15	.10						.18	.09		3.28
Melville‖	Red					T.			.18		T.		.06	.04	T.				T.		.65									0.93
Minden‖	do									1.48		.30	.11		.14		T.			.34	.15					.03	.48	.12		3.15
Monroe‖	Ouachita				.17					1.80		2.00		.52							.43					.10	.40	.17		5.59
Morgan City‖	Coast					T.				.34			.18	.05	T.						.51									1.08
Newellton	Mississippi																													
New Iberia	Coast									.20	T.	.03	.05							.78										1.06
New Orleans (1)	do								.20	.40		.07	T.	.35						.33										1.35
New Orleans (2)	do								.15	.33		.07	.01	.48				.01		.41										1.46
New Orleans (3)	do								.02	.20		.05		.37						.33										0.97
New Orleans (4)	do								.12	.30		.06	.01	.44	.01			.01		.38										1.33
New Orleans (5)	do								.28	.24		.06		.48						.01										1.07
New Orleans (6)	do								.19	.32		.06		.31						.29										1.17
New Orleans (7)	do								.26	.24		.06		.51						.41										1.48
New Orleans (8)	do								.14	.49		.02		.83						.24										1.72
Opelousas‖	do											.06	.10	.05							.75									0.96
Paradis	do																													
Pearl River‖	Pearl			T.		.10				.76	.02		.14		.32						.34									1.68
Plain Dealing	Red			.03			.11		.28			.88		.09						.60					.02		.58	.28		2.87
Rayne‖	Coast							T.		.40		.04									.62									1.06
Reserve‖	do									.93											.44									1.37
Robeline‖	Red									.52		.45			.15					.68						T.	.32			2.12
Ruston	Ouachita				.10				.60			2.00								.60										3.30
St. Francisville‖	Mississippi																					1.25								1.25
Schriever‖	Coast								T.	.19	T.	T.	.24	T.	.03						.66									1.12
Sheridan	Pearl				.20				.10					.20						.30										0.80
Shreveport	Red			T.					.67	.13	.07	.26	T.	.07		T.	T.		T.	.37					T.	.19	T.	.03		1.79
Simmesport‖	do										T.		.08	.06							.29	T.								0.43
Southern Univ. Farm	Coast							.01		.40	T.			.45						.72										1.58
Sugartown	do														.78					.48										1.26
Tallulah	Mississippi									1.90		.50			.20					.38							1.33			4.31
Walker	Coast								.40												.40									0.80

TABLE 3.—*Maximum and minimum temperatures at selected stations for February, 1911. District No. 7, Lower Mississippi Valley.*

Date.	Colorado.						New Mexico.				Texas.				Kansas.										Oklahoma.			
	Lamar.		Leadville.		Pueblo.		Albert.		Cimarron.		Amarillo.		Paris.§§		Dodge City.		Ellinwood.		Iola.		Liberal.		Wichita.		Ardmore.§§		Bartlesville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	66	42	34	17	62	30	72	42	57	40	77	44	85	54	69	36	72	41	80	37	78	47	75	37	92	56	89	45
2	61	18	39	8	64	17	62	30	60	26	66	30	68	59	51	23	55	13	45	21	60	20	47	22	55	50	47	28
3	64	28	31	13	64	28	72	42	65	38	67	43	83	47	65	34	68	21	60	29	65	35	63	33	78	40	55	38
4	60	24	35	17	47	27	67	41	63	31	65	43	76	44	43	28	54	20	49	24	50	29	48	27	74	41	65	37
5	65	20	27	14	57	25	62	38	58	15	66	43	74	44	63	35	58	41	63	39	65	41	67	39	76	54	72	40
6	65	15	36	6	62	18	62	28	59	16	67	32	79	47	51	20	50	13	43	25	57	20	43	21	68	42	50	27
7	60	28	30	8	45	19	52	34	56	25	50	36	75	47	48	23	47	17	44	26	52	24	49	29	70	40	55	28
8	51	9	29	4	49	13	52	21	57	16	51	28	51	45	50	15	54	14	49	20	51	13	50	22	45	39	52	26
9	56	8	39	1	49	11	52	22	64	17	54	24	63	43	52	21	52	16	48	20	53	15	51	26	62	30	52	21
10	65	15	39	6	61	13	46	25	54	13	38	31	52	40	53	24	57	24	55	22	50	24	55	27	56	35	52	20
11	70	15	40	9	67	27	.....	.....	61	15	69	32	48	35	65	35	55	38	44	36	69	28	46	36	47	35	46	36
12	75	28	34	16	65	27	67	24	63	27	73	40	54	37	75	38	76	38	58	40	78	33	58	43	56	38	60	41
13	75	28	29	6	52	33	57	37	55	32	56	31	72	41	52	34	73	41	60	44	65	39	56	45	65	50	62	46
14	59	23	34	9	57	23	60	24	53	18	66	31	73	42	61	30	70	29	64	35	68	26	61	34	72	39	60	38
15	52	27	27	5	47	25	63	32	56	19	67	33	73	40	58	36	69	40	75	43	61	37	70	44	76	43	80	46
16	49	30	27	16	36	30	57	46	55	39	68	36	80	53	43	34	67	36	74	58	54	32	61	43	75	58	77	62
17	42	29	44	14	36	29	47	32	39	27	36	31	78	60	34	30	64	32	62	38	34	30	44	34	71	62	75	62
18	43	22	23	6	32	19	40	23	36	22	32	22	72	59	31	21	58	25	38	30	32	23	35	29	53	42	62	35
19	30	− 9	17	− 1	19	0	26	16	25	8	24	14	40	39	25	12	29	19	31	23	25	15	30	22	35	32	35	29
20	20	− 11	15	− 11	18	− 3	25	4	15	− 5	23	11	44	30	22	2	26	5	25	15	22	− 2	25	13	37	25	32	18
21	20	− 8	14	− 15	13	− 5	24	8	18	− 1	19	10	42	23	14	2	21	3	21	11	16	0	19	10	32	21	27	16
22	22	− 10	23	− 12	19	− 10	27	0	18	− 7	26	7	43	19	25	− 3	35	0	37	14	21	− 3	36	12	41	16	44	16
23	21	− 9	34	− 8	30	− 8	37	4	29	− 4	33	11	52	19	29	0	36	6	38	20	28	− 2	38	20	49	20	47	22
24	30	− 4	34	− 3	32	− 1	31	12	22	3	41	22	57	24	35	3	42	13	52	22	37	2	48	25	55	27	55	24
25	45	6	24	2	40	15	43	11	44	6	51	31	54	24	40	30	41	32	48	34	40	22	40	33	62	40	46	34
26	38	6	16	0	27	20	43	22	32	10	44	27	71	41	34	23	39	24	39	30	34	22	37	30	63	35	50	33
27	45	15	20	− 1	21	14	28	25	25	21	30	22	57	46	29	16	34	19	36	25	30	18	33	22	49	34	50	29
28	45	13	41	10	19	2	34	15	28	16	22	17	48	47	21	14	24	17	25	21	21	13	22	20	36	31	32	27
Mns..	49.8	14.2	29.8	4.9	42.5	15.6	48.4[a]	24.4[a]	45.2	17.2	49.3	27.9	63.0	41.0	44.2	22.0	50.9	22.8	48.7	28.6	47.0	21.5	46.7	28.5	58.9	38.4	54.6	33.0

Date.	Oklahoma—Continued.														Missouri.										Lynnville, Ky.		Jackson, Tenn.	
	Enid.§§		McAlester.		Mangum.§§		Muskogee.		Oklahoma.		Weatherford.§§		Woodward.		Caruthersville.		Ironton.§§		Lamar.§§		Olden.		Springfield.					
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	81	48	90	63	79	47	90	55	90	52	89	50	84	50	78	46	83	33	86	45	84	32	84	46	.....	.....	78	49
2	66	50	81	45	75	31	82	37	55	36	56	34	67	24	69	42	48	30	47	24	78	33	46	25	.....	.....	75	45
3	65	30	75	43	71	43	68	41	69	42	75	34	72	40	60	36	53	25	59	23	60	31	58	36	.....	.....	69	40
4	60	29	72	37	77	63	64	30	64	33	59	31	58	29	55	34	48	27	53	24	57	27	49	25	.....	.....	69	36
5	75	28	74	56	69	55	67	40	76	50	72	33	72	40	51	40	45	34	55	26	47	35	54	36	.....	.....	66	35
6	67	30	72	40	55	37	65	33	54	32	55	52	65	33	62	39	45	34	45	30	50	34	44	29	.....	.....	68	36
7	57	27	71	39	60	35	62	35	56	38	59	33	53	20	49	32	45	23	59	29	44	26	53	29	.....	.....	60	35
8	58	28	61	34	65	35	54	38	45	31	48	31	50	22	46	35	46	29	46	25	47	28	44	26	.....	.....	56	34
9	58	25	61	29	61	32	56	23	56	24	63	21	59	14	58	32	49	20	50	21	52	24	45	29	.....	.....	54	34
10	55	25	58	36	53	33	55	30	55	36	53	28	52	26	50	29	48	15	55	25	48	18	49	25	.....	.....	49	25
11	60	28	51	36	55	35	52	32	45	35	47	33	56	35	42	34	44	33	42	26	45	32	41	32	.....	.....	46	34
12	65	33	49	43	67	38	60	41	52	42	57	39	63	43	46	39	44	36	61	36	48	34	55	36	.....	.....	47	33
13	65	37	68	46	72	45	66	44	60	46	61	43	63	48	57	42	59	36	69	41	60	31	68	39	.....	.....	59	43
14	69	34	72	43	74	32	69	40	67	38	71	31	70	27	68	52	67	46	68	38	67	46	63	42	.....	.....	72	44
15	75	34	71	51	72	43	76	46	76	48	78	32	70	34	83	40	77	29	80	38	77	40	76	50	.....	.....	83	40
16	74	40	78	62	72	51	79	61	75	63	74	46	64	45	83	52	78	46	77	47	76	53	74	60	.....	.....	78	53
17	58	40	79	64	40	39	79	60	67	39	40	39	45	35	78	60	76	60	74	60	74	53	73	44	.....	.....	72	45
18	48	35	74	46	38	36	60	44	41	35	35	35	36	32	70	42	42	42	39	38	69	39	44	32	.....	.....	74	43
19	28	26	48	32	35	26	48	32	35	24	29	29	32	20	45	36	32	31	30	28	49	29	33	23	.....	.....	55	35
20	30	19	40	26	32	18	35	25	30	22	33	17	25	8	36	28	29	22	28	21	31	22	24	15	.....	.....	44	29
21	25	16	34	21	39	19	32	19	25	18	41	18	21	12	38	20	28	12	25	15	30	11	21	11	.....	.....	33	21
22	27	15	45	11	48	14	44	14	38	14	43	15	30	6	46	17	38	13	38	14	40	11	33	10	.....	.....	44	18
23	31	19	51	23	54	19	48	21	42	20	46	13	38	10	50	24	45	15	42	14	46	16	37	21	.....	.....	44	24
24	34	22	57	25	64	23	55	24	50	23	53	21	48	16	56	24	55	23	53	21	53	20	48	22	.....	.....	53	23
25	37	23	54	39	54	34	55	34	54	36	54	21	55	33	58	25	52	22	50	23	50	34	48	33	.....	.....	66	27
26	53	21	60	38	50	31	57	35	49	31	47	30	45	27	71	45	61	42	47	34	61	40	49	32	.....	.....	71	33
27	37	24	54	34	32	31	51	31	40	29	34	30	40	25	61	36	47	31	45	21	55	27	44	28	.....	.....	59	41
28	26	26	48	34	46	25	50	34	32	28	28	26	26	20	45	34	31	27	30	22	51	23	30	24	.....	.....	56	34
Mns..	53.0	29.0	62.4	39.1	57.5	34.4	60.0	35.7	53.5	34.5	53.6	30.9	52.1	27.6	57.5	36.2	50.5	29.9	51.9	28.9	55.3	30.3	49.5	30.7	.....	.....	60.7	35.3

TABLE 3.—*Maximum and minimum temperatures at selected stations for February, 1911. District No. 7*—Continued.

Date.	Tennessee.				Arkansas.																		Mississippi.					
	Memphis.		Union City.		Bentonville.		Corning.		Dardanelle.§§		El Dorado.§§		Fort Smith.		Little Rock.		Pine Bluff.§§		Texarkana.§§		Wynne.§§		Clarksdale.§§		Corinth.§§		Greenville.§§	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	77	60	75	41	84	51	80	39	87	41	81	60	87	51	80	59	81	60	81	60	86	47	80	52	.....	.....	82	57
2	67	43	71	40	52	34	76	43	62	42	62	36	66	50	69	48	70	57	72	60	68	63	68	56	.....	.....	68	58
3	70	43	58	35	62	40	57	37	71	47	79	54	69	43	72	47	76	51	80	54	76	48	74	48	.....	.....	76	55
4	56	44	53	35	56	28	55	36	60	33	70	46	62	42	57	47	62	41	70	44	65	40	62	42	.....	.....	67	47
5	58	43	48	39	58	46	51	40	55	35	72	49	55	46	65	45	70	47	74	49	64	42	68	42	.....	.....	74	49
6	65	48	58	48	54	34	57	43	70	38	79	54	64	42	72	51	73	55	77	54	67	44	73	47	.....	.....	80	56
7	54	39	54	31	65	37	55	32	52	40	75	57	55	45	54	46	70	50	76	55	57	38	67	50	.....	.....	76	58
8	49	37	45	35	45	26	47	34	55	43	62	61	55	41	50	43	53	47	59	59	54	28	52	52	.....	.....	61	59
9	53	35	54	31	50	24	56	29	60	37	58	40	58	36	56	38	58	40	58	42	62	35	57	39	.....	.....	57	41
10	47	34	47	26	53	26	50	25	52	28	51	39	54	33	50	38	50	37	51	42	60	34	52	35	.....	.....	51	39
11	43	35	42	34	43	33	46	33	42	33	46	37	43	32	43	34	45	40	47	38	44	23	45	36	.....	.....	45	39
12	47	40	46	39	58	38	45	39	50	33	52	38	53	40	46	41	51	36	53	38	56	32	50	36	.....	.....	54	38
13	65	43	56	43	67	44	55	43	65	40	72	42	69	44	67	45	70	42	75	47	72	41	69	42	.....	.....	74	43
14	70	54	71	53	66	42	71	51	72	47	77	50	69	49	72	49	76	50	73	49	76	47	75	50	.....	.....	77	53
15	77	57	78	39	76	47	79	39	81	38	81	48	78	47	77	50	72	44	77	52	80	42	80	48	.....	.....	82	51
16	79	64	79	52	75	58	80	55	79	47	79	52	78	61	75	65	80	61	79	59	83	42	78	51	.....	.....	83	58
17	75	62	75	59	75	47	75	62	75	55	78	59	78	64	74	61	78	60	78	62	85	60	77	61	.....	.....	80	61
18	69	49	69	48	50	38	72	43	72	60	76	63	70	50	72	46	77	60	75	63	75	60	78	60	.....	.....	81	61
19	49	35	50	36	38	27	44	34	43	40	49	46	50	33	46	36	55	45	49	47	50	46	49	49	.....	.....	68	63
20	35	30	37	25	31	19	34	29	40	35	39	36	37	27	36	29	41	35	43	35	41	28	37	35	.....	.....	39	37
21	34	23	34	20	25	15	33	20	41	24	45	24	31	22	36	23	42	25	43	27	39	18	41	25	.....	.....	44	28
22	42	20	40	19	38	12	47	18	45	19	36	23	41	17	44	20	49	21	42	23	48	21	46	23	.....	.....	46	25
23	45	29	46	23	42	19	49	22	51	25	52	25	47	25	48	28	50	26	51	24	51	20	52	23	.....	.....	54	26
24	51	32	53	24	52	22	56	26	56	31	58	27	52	28	58	33	60	28	55	25	53	22	55	29	.....	.....	57	31
25	56	38	54	31	48	34	55	36	57	29	61	33	53	35	56	37	60	34	59	30	61	31	59	31	.....	.....	63	32
26	70	51	67	47	57	33	64	47	58	34	70	38	59	43	70	48	76	54	72	42	70	37	73	37	.....	.....	70	39
27	56	41	60	35	50	30	62	34	57	43	55	55	54	42	55	42	56	48	53	51	61	40	52	44	.....	.....	58	56
28	47	34	48	33	39	31	49	32	43	43	55	48	49	37	50	33	46	46	49	47	46	38	47	43	.....	.....	52	49
Mns.	57.4	41.5	56.0	36.5	53.9	33.4	57.1	36.5	59.0	37.4	63.6	45.0	58.4	40.2	58.9	42.2	62.4	44.3	63.2	45.6	62.5	38.1	61.3	42.4	.....	.....	65.0	46.8

Date.	Mississippi—Continued.						Louisiana.																					
	Kosciusko.§§		Natchez.§§		Vicksburg.		Alexandria.§§		Baton Rouge.§§		Covington.§§		Lafayette. §§		Lake Charles.§§		Monroe.§§		New Orleans.		Robeline.§§		Schriever.§§		Shreveport.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	78	53	81	61	77	61	80	59	80	65	80	58	78	59	78	60	86	59	78	63	82	61	83	61	81	61
2	64	59	81	61	72	62	80	59	79	63	82	60	80	61	81	60	77	57	80	65	78	61	83	60	74	57
3	75	56	79	64	74	62	79	60	77	64	78	58	80	64	80	58	77	53	78	65	78	61	83	61	79	57
4	68	45	75	62	72	54	79	58	75	63	78	64	80	62	80	60	65	53	76	65	76	48	84	55	72	53
5	68	46	79	60	74	55	80	58	78	62	73	61	81	61	78	60	80	51	79	63	80	58	81	57	78	58
6	77	48	78	60	74	65	80	60	81	65	83	61	83	62	80	59	87	58	81	63	85	59	83	60	82	65
7	74	57	83	64	78	65	82	64	82	66	81	60	81	64	81	57	81	67	81	65	87	63	85	61	78	65
8	65	60	82	64	71	55	81	63	83	64	73	63	83	65	83	61	66	66	76	65	65	64	85	62	69	48
9	56	43	53	50	56	43	55	51	62	60	66	58	62	59	71	56	67	30	69	55	57	45	70	62	55	43
10	49	40	55	45	53	46	55	45	56	52	57	50	56	50	56	49	44	43	55	51	55	43	58	52	52	42
11	42	38	45	40	46	38	46	41	64	51	62	48	66	44	67	45	43	30	72	55	47	41	77	51	48	39
12	53	37	60	40	55	43	60	41	60	50	62	48	64	47	68	43	60	30	61	53	60	40	73	54	53	42
13	71	40	80	45	75	52	80	42	76	60	79	49	78	48	80	45	61	39	77	60	80	42	79	56	79	52
14	75	52	84	59	77	58	81	50	80	64	82	62	85	64	81	52	70	39	80	65	82	52	84	58	79	54
15	78	52	86	58	81	65	82	60	84	63	82	63	84	64	80	59	64	42	78	62	85	53	85	58	78	57
16	79	58	86	63	80	62	82	61	83	65	81	63	83	64	81	62	84	40	77	63	83	62	85	64	80	64
17	75	60	85	61	79	61	82	61	79	64	79	65	80	65	80	60	81	55	76	64	80	62	84	61	77	62
18	79	56	82	62	77	62	80	62	78	64	81	61	81	65	79	61	73	64	79	64	78	60	85	60	77	63
19	74	58	72	65	72	44	62	61	73	66	80	60	76	65	80	39	57	57	80	54	64	54	61	58	71	38
20	39	36	42	39	44	35	42	38	45	44	54	46	44	40	68	36	53	38	54	40	45	38	48	43	42	34
21	44	28	47	30	44	30	49	29	51	36	52	36	50	31	67	30	53	29	50	36	47	25	53	32	42	29
22	45	23	48	28	43	28	45	28	50	34	50	30	48	29	51	29	31	26	48	35	45	25	51	32	42	26
23	52	24	60	29	52	32	55	24	57	35	60	25	57	25	60	28	53	20	55	39	46	19	60	24	52	27
24	55	28	62	30	56	36	60	24	55	38	63	25	62	30	65	29	64	27	58	42	61	22	62	25	56	32
25	62	27	68	35	63	38	66	29	66	40	67	30	73	33	71	30	64	33	66	44	70	31	77	32	60	40
26	74	27	81	40	77	58	75	38	72	57	79	31	80	41	69	31	71	51	77	58	70	45	80	33	68	59
27	64	57	72	60	64	55	75	60	77	60	80	54	85	59	72	30	63	57	77	54	64	59	83	35	64	52
28	55	49	72	56	67	51	70	58	75	58	79	52	85	54	80	32	56	52	76	56	61	54	82	51	56	44
Means	63.9	44.9	70.6	51.1	66.2	50.6	69.4	49.4	70.6	56.2	72.2	51.5	73.0	52.7	73.8	47.2	65.4	45.2	71.2	55.9	68.2	48.1	75.1	50.6	65.9	48.7

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 8, TEXAS AND THE RIO GRANDE VALLEY.

BERNARD BUNNEMEYER, District Editor.

GENERAL SUMMARY.

The month of February was characterized by generally warm weather and by heavy precipitation in the greater portion of the district. The amount of sunshine was deficient, especially in west Texas, New Mexico, and Colorado. The most noteworthy features of the month were an abundance of moisture in Colorado, New Mexico, and the northern and western portions of Texas, which relieved the drought in those sections, and a severe cold spell from the 19th to the 24th, which caused considerable damage in the southeastern portion of the district, especially as the warm weather of the preceding weeks had stimulated vegetable growth to an unusual extent. A general deficiency of precipitation occurred over a large area of Texas bordering on the Gulf of Mexico and extending inland on the western margin from Nueces to Lampasas County, and on the eastern margin from Jefferson to Panola County. The shortage was greatest in the southeastern portion of this area, where the monthly amounts of moisture were less than in the semiarid regions of the west. There was very little precipitation prior to the 8th in Texas, and prior to the 12th in Colorado and New Mexico. After those dates it occurred at frequent intervals until the close of the month. The average number of days with 0.01 inch or more of precipitation was 11 in Colorado, 7 in New Mexico, and 6 in Texas.

The greatest and least monthly amounts in Colorado were 5.98 inches at Cumbres and 0.50 inch at Garnett; in New Mexico, 4.53 inches at Aspen Grove Ranch and 0.74 inch at Ancho; and in Texas, 6.13 inches at Longview and 0.04 inch at Liberty. Excessive amounts of 2.50 inches or more in 24 consecutive hours occurred as follows: Claytonville, 2.73; Flatonia, 3.13; Jayton, 2.50; Lagrange, 2.83; Longview, 2.60; Plainview, 3.50; Robert Lee, 3.35; Somerville, 2.80; and Thurber, 2.61 inches.

The snowfall was heavy over the upper reaches of the Rio Grande and Rio Pecos watersheds, and very light in southern New Mexico and in Texas. The greatest monthly fall in Colorado was 64.5 inches, at Platoro, and in New Mexico, 63 inches, at Red River Canyon.

TEMPERATURE.

The monthly mean temperature averaged 2.7° above the normal in Colorado, 0.4° above in New Mexico, and 5.2° above in Texas. The excess covered the entire district, except portions of the Rio Grande Valley from Santa Fe to El Paso, where it was slightly colder than normal. The month opened unusually warm, and warm weather continued with but little interruption during the greater part of the first and second decades. In a large number of localities the highest temperatures of the month were recorded on the 1st. A period of unusually cold weather set in on the 19th, which lasted until the 24th, when there was a change to warmer, although in the northern portion of the district low night temperatures continued to the close of the month. During this cold spell temperatures below freezing occurred nearly to the Gulf coast, and temperatures below zero occurred in Colorado and portions of New Mexico. The average diurnal range of temperature varied from about 9° on the upper Texas coast to about 31° in the extreme northern portion of the district.

The highest and lowest temperatures reported were: In Colorado, 62° at Saguache on the 2d and −20° at Manassa on the 23d; in New Mexico, 87° at Carlsbad on the 1st and −16° at Red River Canyon on the 22d; and in Texas, 97° at Graham on the 1st and at San Marcos on the 5th, and 12° at Plainview on the 22d. The local monthly means ranged from 18.6° to 30.5° in Colorado, from 25.4° to 49.8° in New Mexico, and from 42.2° to 69.4° in Texas.

PRECIPITATION.

The precipitation over the Rio Grande watershed averaged 2.09 inches, which is nearly 1 inch greater than normal, and over twice the amount reported for January. The excess covered practically the entire stretch from north to south. The greatest precipitation was 5.98 inches at Cumbres, Colo., and the least 0.50 inch at Garnett, Colo.

The Rio Pecos watershed also had a decided excess of precipitation. The average for the entire drainage area was 1.98 inch, which is about 1.30 inch greater than normal and over four times the amount reported for the preceding month. The greatest precipitation was 3.94 inches, at Windsors Ranch, N. Mex., and the least, 0.85 inch, at Liston, N. Mex. Nearly all the precipitation over the upper portions of both the Rio Pecos and Rio Grande watersheds was in the form of snow.

There was a marked increase in the precipitation over the Texas watersheds from that reported for the preceding month. The total average was about six times greater. In general the monthly amounts over the upper stretches of the watersheds were decidedly in excess of the normal, but the amounts over the lower portions and over the coastal plains were deficient. The greatest monthly precipitation was 6.13 inches, at Longview in the Sabine Valley, and the least 0.04 inch, at Liberty in the lower Trinity Valley. The following are the average monthly amounts in inches for the various watersheds: Nueces, 1.73; San Antonio, 2.07; Guadalupe, 2.41; Lavaca, 2.02; Colorado, 3.08; Brazos, 2.82; Trinity, 3.38; Neches, 2.88;

Sabine, 3.58; and coastal plains, 1.09. In January the averages varied from a minimum of 0.23 inch for the lower Guadalupe to a maximum of 0.71 inch for the Neches.

RIVER CONDITIONS.

The streams of the district generally averaged higher than during the preceding month, but there was very little change until after the middle of the month. On the 18th sharp rises occurred in the upper Colorado, and on the 21st in the upper Brazos and upper Trinity. The Colorado rise was felt throughout its length, and the stages reached, although below flood stage, are the highest on record for February. The Trinity and Brazos rises did not show up much in the lower portions of these streams. The Brazos, however, rose higher in its upper and middle portions than in any previous February since 1903.

SNOWFALL IN THE MOUNTAINS.

There was much snowfall during the month, and the prospects for irrigation water are decidedly more favorable than at any previous time this season. The accumulated depth of snow over the headwaters of the Rio Grande and Rio Pecos at the close of the month was greater in many localities than during the corresponding period of the previous year. The following extracts from reports of Weather Bureau officials furnish special information on the snowfall conditions in these drainage basins:

Colorado.—The latter half of February was stormy, and valuable additions to the stock of snow in the mountains were made on all watersheds, notably on the Rio Grande. A considerable excess was general in the Rio Grande drainage basin and over the adjacent small watersheds. As a whole, the snow is solidly packed on the western slope and loosely packed on the eastern slope.

Comparing the depths on the ground at the end of the month, the average for the snow scales on the Rio Grande, 30 inches, is 5 inches more than a year ago. For the early part of the irrigation season, about the normal flow is indicated.—*F. H. Brandenburg, district forecaster.*

New Mexico.—Very general and heavy snowfall occurred over the Rio Grande watershed during the last half of February, and a large amount of accumulated snow is reported over the headwaters of this stream, and thence southward to central New Mexico, while the southern districts generally had heavy rain. An excess in precipitation also occurred in January, with small run-off, so that the soil is well filled with moisture and the water outlook is greatly improved. Early water will be abundant and the prospect is promising.

General and fairly heavy snow occurred over the mountain districts in the Rio Pecos watershed, and over the plateau and some of the plains country, while good rains were general over the lower levels and the southern latitudes. The soil is now well filled with moisture and the outlook greatly improved. The main stream and some of the tributaries will have a good early flow, but seasonal rains will be needed to continue it far into the irrigation season.—*C. E. Linney, section director.*

MISCELLANEOUS.

Alvin.—Every new shoot was killed by the frost of the 22d and 23d.

Big Springs.—Farmers say they have the finest season, for this time of the year, they ever have had.

Bowie.—The cold wave of the 19th to 24th killed nearly all fruit which was in blossom.

Cameron.—The cold spell of the 23d and 24th killed part of the vegetable crop and about 20 per cent of the fruit.

Cuero.—The cold wave of the 23d and 24th killed some vegetables and some of the young corn that was up.

Gorham.—The top soil is in fine condition for the planting of crops, but the moisture is very shallow and a great deal more rain is needed.

Grand Saline.—Most of the fruit was killed by the severe freeze of the 19th and 20th.

Hondo.—The severe weather of the 23d and 24th did great damage to fruit, figs, etc.

Lagrange.—The killing frost of the 21st to 24th did considerable damage to blooming fruit trees.

Ricardo.—The cold snap, commencing as it did after unusually mild and growing weather, was very damaging to cucumbers, okra, squash, melons, and other early tender vegetables.

BRAZOS RIVER OVERFLOWS AND LEVEE PROTECTION.

By W. W. DIBRELL, Levee Engineer, U. S. G. S.

The recent awakening of the landowners of the Brazos bottoms to the fact that large areas of this land can be protected at a small expense by the construction of levees has attracted public attention to a certain extent, but as yet the general public has no accurate idea of the immense value of the agricultural lands of the Brazos nor the great losses entailed by the overflow of the river.

The Brazos River proper heads in the Staked Plains of western Texas, in Hale and Lamb Counties, flows in a southeasterly direction, and empties into the Gulf of Mexico, draining an area of over 50,000 square miles. The stream in its entire length flows through a soft material, ranging from a black calcareous alluvial soil at the upper end to a sandy and clay loam representing reworked material in the lower parts. At the least sign of high water the river becomes a murky red and carries a large amount of silt. Although draining a very large territory, the river sometimes becomes very low, and the writer has waded it many a time during the dry season. Its main tributaries, the Little River and Little Brazos, have the same characteristics as the main stream and, though draining a smaller area than the main river, do great damage in times of overflow.

The overflows of the Brazos and results therefrom form an interesting study, but, unfortunately, until late years no accurate record has been kept of them. The first inundation of which even tradition speaks occurred in 1833, the next in 1843, and then one, of which there is more known, in 1852. This last appears to have covered immense areas of land and to have done great damage to stock, but facts are meager and unreliable, as might be expected, coming mostly in verbal form from old settlers. Between this flood and the next over 30 years elapsed, in which there was practically no high water, and the natives became careless and overconfident, so that the overflow of 1885 took them entirely by surprise. It seems as if the most damage in this case was done in the upper section, but no reliable reports can be obtained. The land in the lower section had not been cleared to any great extent up to this time, and therefore the damage was not as great as it might have been under other conditions.

What appears to have been the greatest and most general overflow of the Brazos, however, occurred in June and July, 1899. The year "99" is spoken of with awe by the natives and will long be remembered by them. Several years directly preceding 1899 were characterized by dry weather, and until June of that year the rainfall was barely normal. About May 20 excessive rainfall began to be reported all over the Brazos basin. At Anson, Jones County, the precipitation for June was 6.3 inches, against a 12-year average of about 2.4 inches. At Abilene, Taylor County, it was 5.45, average 3;

Panter, Hood County, 11, average, 3.7; Dublin, Erath County, 7.3, average, 2.8; Temple, Bell County, 11, average, 4.3; and like reports were received from stations all over the section. There were two distinct floods, but at such close interval that they are usually classed as one. The first reached its maximum on June 29, and the second on July 1. The average duration of this flood was about eight days, but in that time it covered an area of over 2,000 square miles and did damage to the extent of nearly $7,500,000. The greater damage was done in McLennan, Falls, Robertson, Brazos, Burleson, Grimes, Washington, Waller, Austin, Fort Bend, and Brazoria Counties. All the tributaries were out of their banks as well as the main stream, and the damage was appalling. The flood came at the period of the year when the greatest damage was possible, as none of the crops had been gathered, and it was too late to plant the second time, so that the crops of the season were nearly a complete loss. The damage to cotton was the greatest, amounting to about 226,950 bales. Corn followed, it being estimated that 4,366,000 bushels were destroyed. Besides these two important crops, great losses were sustained in other crops, live stock, building improvements, etc. The damage done to the land by washing was considerable, but this was offset by an increased richness of the soil from the deposit of silt. About 40 lives were lost by drowning, and according to a Government report hundreds of people were in a destitute condition, and large numbers were relieved by the generosity of landowners and public-spirited citizens. A great amount of sickness occurred directly after, malarial fever became prevalent, and the inhabitants underwent many hardships, but as a whole they rallied quickly and were soon back at work. The towns in the valley that depended upon the crops of the farmers suffered greatly and for a while business was almost paralyzed and great losses were the result. From these data the magnitude of the loss from this one flood can easily be seen. Within two weeks the water was out of its banks and back again, in the meantime having flooded 1,383,350 acres, caused a total loss of $7,412,543, ended 40 lives and paralyzed in a business way the entire section.

The next rise occurred in 1902, but did not amount to much. Six years then elapsed, and in May, 1908, the river again seriously threatened the farms. This time also there were two separate floods, but they occurred at a greater interval. About the 25th of April the crest of the first rise was reported at Kopperl, above Waco, and about May 1 it reached its greatest height at Booth, below Richmond. The second flood reached its maximum of 32 feet at Kopperl, on May 25; at Valley Junction, 51 feet, on May 27; at Hempstead, 43 feet, on June 1, and at Booth, 44 feet, on June 5. Ample warning was given the farmers in the lower section, and consequently little damage was done to stock, but the crops suffered heavily, especially in the second rise. There has been no estimate of the total loss as in 1899, for the overflow was not as general and widespread, but in some sections the crops were a complete loss. Late corn was planted after the waters receded, but did not do very well. In some parts cotton was replanted, but according to individual reports nothing was gained.

Within the last 10 years there has been a great amount of new land cleared and put under cultivation in this watershed, and the valuation has advanced considerably. All that is needed to make this one of the most profitable of farming districts is efficient protection against such overflows as those just mentioned. To accomplish this, a new interest is being taken in leveeing the river, and some progress has been made in the construction of levees.

Until the last year or two no systematic attempt has been made by planters to protect large areas, and the only work done was by individual parties here and there by constructing levees around their own property. A few levees were put up prior to the flood of 1899, but they proved ineffective, as they were mere earthen embankments thrown up in spare time for protection against slight rises, and were easily topped by the water. Later, others were erected which were but little better for protection against floods. The Sanger plantation, in Falls County, has had levees up for a number of years. The Wilson farm, in Robertson County, built levees about 1895, but both the rise of 1899 and that of 1908 went over them. In Brazos County the Rogers plantation built levees about 1905, but the second flood of 1908 topped them. Near Downsville, below Waco, embankments are being constructed by individual parties, under the supervision of engineers, which will likely prove effective, except in case of very high water. The Henderson farm, in Milam County, is also erecting a good embankment, but until 1910 no systematic attempt was made by the combined landowners in constructing levees.

In the appropriations of a former legislature $50,000 was set aside for levee and drainage purposes, and Mr Arthur Stiles, of the United States Geological Survey, was appointed State levee and drainage commissioner. The Federal Government added $50,000, and in cooperation with the State, in October, 1909, Mr. Stiles began preliminary surveys of the Brazos River from Sealy to Waco. Parties were kept in the field until May, 1910, and a considerable area was mapped preparatory to the location of the levees. Since then little has been done by the State, but Mr. Stiles hopes to begin operations again at an early date.

The most effective attempt at protection at present, however, is being done by the landowners. By forming into independent levee districts, taxing the land to be protected and issuing bonds, considerable territory is being put under protection.

Burleson County was the first to organize, and in the early part of 1910 let the contract for about 25 miles of levee. This was finished early in March, 1911. Brazos County followed, and in November, 1910, issued bonds to the value of $49,000, and awarded the contract for 12½ miles of levee, protecting 8,000 acres. This levee is to be finished by May, 1911. Washington County has lately formed a district and awarded the contract for 16 miles, protecting about 10,000 acres, at an estimated cost of $57,000. Efforts are being made to organize other districts which will undoubtedly be successful.

With the organization of these independent districts and with the cooperation of the Government the Brazos bottom will soon be a safe and productive section for the raising of crops. The changing of such an immense territory from a sickly, unsafe country to one of the most fertile sections of the State should attract the attention of the people at large, which it undoubtedly will do.

TABLE 1.—*Climatological data for February, 1911. District No. 8, Texas and the Rio Grande Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Blanca	Costilla	7,865	2	25.8	.....	53	9	− 8	23	42	1.00	.....	0.32	14.0	9	11	15	2	sw.	Dr. L. C. Audrain.
Cumbres	Conejos	10,015	4	.....	.....	.....	.....	.....	.....	.....	5.98	.....	1.03	61.0	16	7	6	15	.....	Mrs. Ida M. Lively.
Garnett	Costilla	7,576	18	25.2	+ 1.8	54	11	− 16	23	49	0.50	+ 0.28	0.12	9.5	7	13	6	9	.....	Chas. Speiser.
Hermit	Hinsdale	9,843	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Marion Mason.
La Veta Pass	Costilla	9,000	1	.....	.....	.....	.....	.....	.....	.....	2.74	.....	0.60	41.1	11	10	7	11	w.	Marine D. Wright.
Manassa	Conejos	7,700	5	26.2	.....	54	1	− 20	23	48	0.60	.....	0.28	8.5	6	16	4	8	sw.	J. B. Chapman.
Platoro	....do	9,675	4	.....	.....	.....	.....	.....	.....	.....	5.75	.....	0.77	64.5	14	9	8	11	sw.	Walter R. Hook.
Saguache	Saguache	7,740	19	30.3	+ 5.4	62	2	− 5	22	65	1.13	+ 0.85	0.25	13.2	8	18	1	9	.....	Eugene Williams.
San Luis	Costilla	7,794	20	27.1	+ 1.5	51	1	− 18	23	49	1.43	+ 0.86	0.34	14.3	12	8	14	6	sw.	P. B. Albright.
Wagon Wheel Gap Exp. Sta.	Mineral	9,235	....	18.6	+ 2.0	41	3	− 15	23	36	2.96	+ 2.24	0.84	36.0	13	12	6	10	s.	U. S. Weather Bureau.
New Mexico.																				
Agricultural College	Dona Ana	3,863	48	45.5	− 0.9	76	4	21	26	42	0.78	+ 0.31	0.36	T.	5	4	21	3	se.	N. Mex. Agri. College.
Alamogordo (near)	Otero	4,338	10	48.6	.....	74	3†	20	23	43	1.96	.....	0.80	.....	10	4	10	12	s.	Charles D. Sutton.
Alamogordo	....do	4,320	2	.....	.....	.....	.....	.....	.....	.....	1.40	.....	0.75	.....	4	.....	.....	.....	.....	Agent, E. P. & S. W. R. R.
Alamos Ranch	Sandoval	7,800	....	.....	.....	.....	.....	.....	.....	.....	2.01	.....	0.50	23.2	9	14	2	12	s.	Harold H. Brooks.
Albuquerque	Bernalillo	5,000	35	.....	.....	.....	.....	.....	.....	.....	1.73	+ 1.45	0.65	5.2	7	11	7	10	s.	Pitt Ross, C. E.
Ancho	Lincoln	6,112	2	.....	.....	.....	.....	.....	.....	.....	0.74	.....	0.32	9.0	5	.....	.....	.....	.....	Agent, E. P. & S. W. R. R.
Artesia	Eddy	3,350	4	46.0	.....	81	4	20	22†	41	1.72	.....	0.90	0.7	4	3	8	17	s.	Will Benson.
Aspen Grove Ranch	Rio Arriba	9,000	2	.....	.....	.....	.....	.....	.....	.....	4.53	.....	0.86	54.6	14	9	10	9	.....	Junius D. Maupin.
Batemans Ranch	....do	8,900	2	.....	.....	.....	.....	.....	.....	.....	3.32	.....	0.52	32.6	9	9	11	8	w.	John W. Bateman.
Bluewater	Valencia	6,732	9	30.5	.....	59	11	− 6	23	46	2.03	.....	0.48	24.5	9	10	2	16	s.	Bluewater Development Co.
Boaz	Chaves	4,154	2	41.5[d]	.....	75	4	15[e]	23	42	0.96	.....	0.47	4.0	4	4	14	10	w.	D. C. Savage.
Capitan	Lincoln	6,348	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent, E. P. & S. W. R. R.
Carlsbad	Eddy	3,120	16	49.8	+ 2.6	87	1	21	23	44	1.82	+ 1.42	0.62	0.2	7	8	8	12	w.	U. S. Reclamation Service.
Carrizozo	Lincoln	5,429	3	40.4	.....	68	2†	10	21	33	1.23	.....	0.55	4.0	4	17	9	2	sw.	Agent, E. P. & S. W. R. R.
Carson Park	Taos	7,650	....	.....	.....	.....	.....	.....	.....	.....	2.25	.....	0.85	32.0	10	.....	.....	.....	.....	Lester S. Myers.
Chama	Rio Arriba	7,851	12	25.4	− 0.9	46	11†	− 12	22	42	1.68	− 1.35	0.35	24.5	9	12	6	10	sw.	Frank C. Johnson.
Cloudcroft	Otero	8,650	8	32.0	.....	54	15	0	21	32	3.11	+ 1.22	1.03	21.5	9	11	2	15	sw.	Agent, E. P. & S. W. R. R.
Corona	Lincoln	6,666	2	.....	.....	.....	.....	.....	.....	.....	1.63	.....	0.98	22.0	6	6	9	13	sw.	Do.
Coyote	....do	5,800	2	.....	.....	.....	.....	.....	.....	.....	0.79	.....	0.59	2.5	4	13	6	9	sw.	Do.
Cundiyo	Santa Fe	6,889	2	.....	.....	.....	.....	.....	.....	.....	1.83	.....	0.50	22.0	9	13	3	12	w.	Teofilo Vijil.
Demonstration Farm	San Miguel	6,800	2	.....	.....	.....	.....	.....	.....	.....	2.63	.....	1.80	18.5	5	.....	.....	.....	.....	Erb & Westerman.
Duran	Torrance	6,272	2	.....	.....	.....	.....	.....	.....	.....	2.05	.....	1.20	15.0	5	13	1	14	.....	Agent, E. P. & S. W. R. R.
Elk (near)	Chaves	7,400	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Boyd Williams.
Escondido	Otero	4,014	2	.....	.....	76	11	.....	.....	.....	1.92	.....	1.00	0.0	3	13	6	9	sw.	Agent, E. P. & S. W. R. R.
Espanola	Rio Arriba	5,590	13	35.2	− 0.2	60	1†	11	23	42	0.99	+ 0.65	0.30	7.1	9	16	1	11	s.	Mrs. E. F. McBride.
Estancia	Torrance	6,140	6	28.4	.....	62	10	− 12	26	46	2.00	.....	0.81	17.5	7	12	8	8	e.	Agent, N. Mex. Cent. R. R.
Fort Stanton	Lincoln	6,231	33	36.8	− 1.7	74	1	− 4	22	47	1.82	+ 1.11	1.00	18.5	6	14	8	6	w.	U. S. Sanitarium.
Fort Sumner	Guadalupe	3,960	3	43.8[b]	.....	72[c]	1†	5	21	52	1.63	.....	0.99	5.0	5	19	1	8	s.	F. A. Manzanares.
Gallinas	Lincoln	6,635	2	.....	.....	.....	.....	.....	.....	.....	2.00	.....	0.55	18.0	5	8	6	14	w.	Agent, E. P. & S. W. R. R.
Gallinas Planting Sta	San Miguel	7,500	4	30.7	.....	64	3	− 12	22	43	1.91	.....	0.80	29.0	6	9	15	4	w.	U. S. Forest Service.
Glorieta Ranch	Socorro	5,700	....	.....	.....	.....	.....	.....	.....	.....	3.24	.....	0.74	21.5	11	5	13	10	s.	Chas. M. Crossman.
Harveys Upper Ranch	San Miguel	9,400	2	.....	.....	.....	.....	.....	.....	.....	3.04	.....	1.08	59.0	10	12	13	3	sw.	Simon B. Warner.
Hillsboro	Sierra	5,224	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Frank I. Givens.
Hodges	Taos	8,484	2	.....	.....	.....	.....	.....	.....	.....	2.45	.....	0.98	23.5	7	14	1	13	nw.	Austin Porter.
Hondo Reservoir	Chaves	3,904	2	43.2	.....	79	4	12	22	47	1.73	.....	0.72	6.0	6	9	7	12	s.	U. S. Reclamation Service.
Hope	Eddy	4,000	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. W. Board.
Jemez Springs	Sandoval	6,100	....	35.3	.....	55	1†	5	22†	29	2.51	.....	0.63	22.9	8	12	2	14	sw.	Linus L. Shields.
Knowles (near)	Eddy	4,300	1	45.2	.....	78	1	15	22	39	1.88	.....	0.94	T.	3	10	7	11	ne.	J. W. Mosley.
Laguna	Valencia	5,840	6	35.2	.....	67	1	7	22	38	1.70	.....	0.77	23.5	6	.....	.....	.....	w.	Gus Weiss.
Lagunita	Guadalupe	4,500	6	42.0[c]	.....	73	12	.....	.....	38	1.56	.....	1.25	12.0	4	.....	.....	.....	w.	P. A. Turnbull.
Lake Valley	Sierra	5,412	6	.....	.....	.....	.....	.....	.....	.....	2.11	.....	0.64	8.0	9	6	14	8	sw.	Wm. P. Keil.
Las Vegas	San Miguel	6,384	24	32.0	− 2.2	67	4	− 14	22	45	1.33	+ 0.41	0.72	16.0	6	12	7	9	sw.	N. Mex. Normal University.
Liston	Chaves	5,000	1	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.65	.....	3	11	11	6	sw.	H. G. Liston.
Los Lunas (near)	Valencia	4,900	21	39.7	+ 1.2	66	12	15	9	45	1.55	+ 1.07	0.64	1.5	8	5	16	7	.....	Richard Pohl.
Magdalena	Socorro	6,557	6	36.2	.....	65	12	4	22	37	1.00	.....	0.50	20.0	6	7	13	8	sw.	Wm. Pender.
Mineral Hill	San Miguel	7,050	6	.....	.....	.....	.....	.....	.....	.....	2.27	.....	1.35	24.0	5	2	14	12	sw.	W. M. Nelson.
Monterey	Otero	4,436	2	.....	.....	.....	.....	.....	.....	.....	1.67	.....	0.83	2.0	4	13	7	8	w.	Agent, E. P. & S. W. R. R.
Mountainair	Torrance	6,547	9	32.8	.....	60	12	− 2	22†	35	2.73	.....	1.09	36.0	6	9	12	7	sw.	Mrs. John W. Corbett.
Newman	Otero	3,989	2	.....	.....	.....	.....	26	23	....	1.77	.....	1.40	T.	4	10	2	16	n.	Agent, E. P. & S. W. R. R.
Noria	Dona Ana	4,114	2	.....	.....	74	4†	.....	.....	....	0.90	.....	0.75	T.	5	12	2	14	w.	Do.
Orange	Otero	5,000	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jas. Brownfield, jr.
Orogrande	....do	4,171	2	.....	.....	74	3	.....	.....	....	1.62	.....	1.25	T.	4	7	5	16	w.	Agent, E. P. & S. W. R. R.
Oscura	Lincoln	5,016	2	.....	.....	.....	.....	.....	.....	.....	1.96	.....	0.99	0.7	6	.....	.....	.....	.....	Eugene F. Jones.
Otis	Eddy	3,100	2	.....	.....	.....	.....	.....	.....	.....	2.24	.....	0.85	T.	5	8	8	12	se.	A. M. Hove.
Otto	Santa Fe	6,200	2	.....	.....	.....	.....	.....	.....	.....	2.66	.....	0.90	25.5	7	.....	.....	.....	.....	O. H. Johnson.
Pastura	Guadalupe	5,285	2	.....	.....	.....	.....	.....	.....	.....	1.90	.....	1.50	18.0	6	12	7	9	sw.	Agent, E. P. & S. W. R. R.
Placitas (near)	Bernalillo	8,000	....	30.7	.....	52	3	− 2	22†	37	4.31	.....	1.00	56.0	12	14	6	8	w.	Geo. C. Ellis.
Plainview	Chaves	4,300	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. P. Adair.
Red River Canyon	Taos	8,956	3	27.4	.....	56	2†	− 16	22	51	4.02	.....	0.85	63.0	11	13	3	12	w.	Mrs. L. R. Penn.
Rincon	Dona Ana	4,030	13	48.0	+ 2.0	79	4	24	23	43	1.73	+ 1.22	1.00	1.0	5	5	17	6	w.	Chas. H. Raitt.
Rio Grande Dam	Sierra	4,265	13	45.9	+ 2.2	74	2	20	22	38	1.80	+ 1.48	0.81	T.	7	13	6	9	sw.	U. S. Reclamation Service.
Rosedale	Socorro	6,910	6	35.2	.....	60	4	2	22	27	2.15	.....	0.73	19.6	10	9	5	14	w.	W. H. Martin.
Roswell	Chaves	3,578	13	42.7	+ 0.2	79	4	16	22	46	1.92	+ 1.33	1.11	8.8	7	4	8	16	n.	U. S. Weather Bureau.
San Marcial	Socorro	4,439	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent, A. T. & S. F. R. R.
San Rafael	Valencia	6,509	7	32.2	.....	65	7†	− 8	23†	52	1.87	.....	0.72	30.0	6	13	4	11	se.	Dr. Chas. M. Grover.
Santa Fe	Santa Fe	7,013	38	30.6	− 1.4	54	12	− 2	21	28	1.99	+ 1.15	0.76	18.7	10	11	10	7	ne.	Section Center.
Santa Fe Canyon	....do	8,000	1	.....	.....	.....	.....	.....	.....	.....	2.80	.....	1.00	25.0	6	12	3	13	e.	C. Martinez.
Santa Rosa	Guadalupe	4,624	11	36.0	.....	69	4†	− 2	22	43	1.88	+ 1.15	1.08	12.0	6	11	11	6	s.	John L. Chapman.
Socorro	Socorro	4,600	19	47.3	+ 5.5	79	1	18	22	42	2.28	+ 1.80	0.90	.....	8	21	2	5	se.	J. J. Leeson.
Stanley	Santa Fe	6,317	2	30.0	.....	60	1	− 11	23	48	3.01	.....	1.42	18.2	8	1	22	5	w.	Henry Winan.
Strauss	Dona Ana	4,080	12	.....	.....	.....	.....	.....	.....	.....	0.88	+ 0.50	0.52	0.0	5	10	4	14	se.	Agent, So. Pac. Ry.
Swastika Ranch	Valencia	6,400	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Swastika S. & L. Co.
Taft	Guadalupe	5,000	1	.....	.....	.....	.....	.....	.....	.....	1.57	.....	0.91	3.0	5	9	12	7	sw.	J. F. Nappier.
Tajique (near)	Torrance	6,900	1	.....	.....	.....	.....	.....	.....	.....	3.07	.....	1.20	36.0	9	5	13	10	.....	U. S. Forest Service.
Taos	Taos	6,983	13	33.2	+ 1.3	56	1	4	24	34	2.00	+ 0.99	0.62	16.8	9	15	9	4	w.	Alex. Gusdorf.
Taos Canyon	....do	8,959	2	.....	.....	.....	.....	.....	.....	.....	2.45	.....	0.62	21.6	9	.....	.....	.....	.....	Leocadio Martinez.
Tecolote	Lincoln	6,539	2	.....	.....	.....	.....	.....	.....	.....	2.03	.....	0.72	17.5	8	14	3	11	w.	Agent, E. P. & S. W. R. R.
Three Rivers	Otero	4,559	2	.....	.....	.....	.....	.....	.....	.....	1.87	.....	0.83	3.4	8	8	5	15	.....	Do.
Tijeras Canyon	Bernalillo	6,214	1	.....	.....	.....	.....	.....	.....	.....	3.08	.....	1.20	27.0	7	9	8	11	sw.	U. S. Forest Service.
Torrance	Torrance	6,433	2	.....	.....	.....	.....	.....	.....	.....	2.84	.....	1.80	24.0	6	5	8	15	e.	Agent, E. P. & S. W. R. R.
Tres Piedras	Taos	8,076	6	26.6	.....	49	1†	− 12	23	42	2.50	.....	0.60	31.0	8	8	8	12	sw.	Edwin B. Seward.
Truchas	Rio Arriba	7,935	2	26.1	.....	49	1†	− 6	24†	38	2.10	.....	0.60	21.0	7	1	19	8	.....	Ignacio Cordova.
Tularosa	Otero	4,436	3	45.6	.....	73	4	22	23	34	1.62	.....	0.77	.....	6	6	12	10	sw.	Irby L. Fairless.
Vaughn	Guadalupe	5,952	2	.....	.....	.....	.....	.....	.....	.....	1.68	.....	0.80	22.0	5	9	12	7	.....	Agent, E. P. & S. W. R. R.
Virsylvia	Taos	7,500	1	27.9	.....	50	1	− 15	23	31	1.58	.....	0.44	16.0	9	15	7	6	s.	Dr. I. N. Woodman.
Winsors	San Miguel	8,200	13	26.7	− 1.6	50	3	− 15	22	45	3.94	+ 2.27	0.98	39.5	11	8	4	16	w.	Henry D. Winsor.

TABLE 1.—*Climatological data for February, 1911. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas.																				
Abilene	Taylor	1,738	26	49.6	+ 4.8	89	1	19	22	31	3.02	+ 1.94	1.75	T.	5	4	5	19	n.	U. S. Weather Bureau.
Albany	Shackelford	1,429	17	48.6	+ 2.5	91	1	15	22	40	2.74	+ 1.70	1.25	0.0	4	9[a]	5[a]	13[a]	.....	N. L. Bartholomew.
Alvin	Brazoria	49	13	61.0	.....	83	2	25	23	28	0.92	− 2.30	0.50	0.0	3	17	6	5	se.	Alvin Japanese Nursery.
Anahuac §	Chambers	23	2	.....	.....	.....	.....	.....	.....	.....	0.71	.....	0.40	0.0	3	.....	.....	.....	.....	B. H. Collins.
Antelope	Jack	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.44	.....	1.10	0.0	5	14	5	9	.....	Chas. C. Hawkins.
Austin	Travis	593	55	58.8	+ 5.6	83	1	26	23	30	2.65	+ 0.25	0.79	0.0	10	10	3	15	nw.	A. Deussen.
Ballinger	Runnels	1,637	15	49.4	+ 3.0	90	1	20	22	44	4.55	+ 3.86	1.40	0.0	4	12	3	13	n.	E. M. Eubank.
Barstow	Ward	2,573	4	51.0	.....	85	7	20	23	47	2.39	.....	0.99	0.0	4	14	9	5	e.	Lee F. Freeman.
Bay City	Matagorda	53	1	.....	.....	.....	.....	.....	.....	.....	0.95	.....	0.62	0.0	3	11	7	10	s.	E. C. Quereau.
Beaumont	Jefferson	29	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Bender.
Beeville	Bee	225	15	63.7	+ 7.5	88	1	32	23	37	2.09	+ 0.13	1.63	0.0	5	4	7	17	se.	L. E. Dickey.
Big Springs	Howard	2,396	13	49.2	.....	82	4	19	22†	37	4.20	+ 3.75	2.33	0.0	6	7	10	11	s.	B. Reagan.
Blanco	Blanco	1,350	15	56.4	+ 8.6	84	6†	21	23	39	2.53	+ 1.14	0.75	0.0	7	10	10	8	s.	R. C. Crist.
Boerne	Kendall	1,412	19	58.6	+ 9.1	83	6†	25	22†	31	2.17	+ 0.53	0.80	0.0	9	8	3	17	s.	F. W. Schweppe.
Booth	Fort Bend	81	10	.....	.....	.....	.....	.....	.....	.....	1.58	− 1.47	1.15	0.0	5	11	0	17	se.	T. R. Booth.
Bowie	Montague	1,113	16	52.0	+ 6.8	92	1	18	22	35	3.40	+ 2.17	1.23	T.	7	9	5	14	n.	Craig Anderson.
Brazoria	Brazoria	25	22	64.7	+ 9.0	82	1†	28	23	36	1.57	− 1.84	0.67	0.0	4	20	2	6	s.	Mrs. M. A. Stevens.
Brazos	Palo Pinto	801	2	.....	.....	.....	.....	.....	.....	.....	2.99	.....	1.05	0.0	4	7	16	5	n.	Robt. E. Boyett.
Brenham	Washington	350	26	60.2	+ 6.6	83	1†	28	23	37	2.53	− 0.34	1.67	0.0	8	6	0	22	n.	Mrs. B. F. Sloan.
Bridgeport	Wise	754	2	.....	.....	.....	.....	.....	.....	.....	3.23	.....	0.95	0.0	6	8	6	14	s.	Claud Strange.
Brighton	Nueces	12	18	65.2	+ 8.3	81	16	36	24	26	1.38	− 0.49	0.90	0.0	2	12	8	8	se.	G. H. Ritter.
Brownsville	Cameron	38	47	67.9	+ 5.1	83	15	38	24	29	2.05	+ 0.66	1.21	0.0	3	.....	.....	.....	s.	U. S. Weather Bureau.
Brownwood	Brown	1,342	19	50.1	+ 1.5	93	1	20	23	48	4.29	+ 3.17	1.08	0.0	7	6	8	14	s.	Mrs. Pearl Smith.
Cameron	Milam	.....	3	57.6	.....	85	2†	25	24	39	3.47	.....	2.43	0.0	8	17	9	2	s.	J. E. Watts.
Carmona	Polk	330	3	61.4	.....	85	14	22	23	39	1.93	.....	0.71	0.0	9	11	7	10	s.	M. S. Spitler.
Claytonville	Fisher	2,100	16	50.2	+ 4.9	86	1	19	22	36	5.03	+ 4.40	2.73	0.0	4	6	16	6	n.	Wm. Lanius.
Coleman	Coleman	1,710	17	53.7	+ 6.0	90	1	20	22	34	3.10	+ 2.07	1.24	0.0	5	7	17	4	n.	J. E. Stevens.
College Station	Brazos	308	21	61.0	+ 9.7	87	16	27	22	34	3.50	+ 1.09	2.33	0.0	9	9	10	9	n.	Prof. G. S. Fraps.
Colorado	Mitchell	2,066	17	49.6	+ 2.1	90	1	16	19†	48	4.84	+ 4.31	2.06	0.0	3	.....	.....	.....	.....	R. M. Webb.
Columbia	Brazoria	34	22	62.9	+ 7.6	81	6†	30	23	29	1.60	− 1.70	0.75	0.0	4	2	20	6	s.	R. B. Loggins.
Columbus	Colorado	206	7	.....	.....	.....	.....	.....	.....	.....	2.32	.....	1.58	0.0	7	5	3	20	se.	Mrs. Sophie Bridge.
Corpus Christi	Nueces	20	24	64.0	+ 6.3	80	3	37	20	30	0.72	+ 1.32	0.38	0.0	4	1	17	10	se.	U. S. Weather Bureau.
Corsicana	Navarro	445	22	54.9	+ 5.3	84	3	24	22†	35	3.69	+ 1.16	1.40	0.0	8	8	8	12	n.	D. H. Winn.
Crockett	Houston	350	7	60.1	.....	84	2	24	23	32	2.47	.....	1.30	0.0	8	7	8	13	s.	A. M. Rencher.
Cuero	De Witt	177	21	63.1	+ 8.5	91	5	26	23	41	2.26	− 0.22	2.00	0.0	6	6	0	22	s.	H. R. Frobese.
Dallas	Dallas	466	22	53.8	+ 6.7	87	1†	22	22†	42	2.98	+ 0.22	0.96	0.0	9	8	0	20	n.	G. A. Eisenlohr.
Danevang	Wharton	145	15	63.7	+ 8.9	83	3†	24	23	36	1.90	− 1.20	1.25	0.0	2	14	6	8	se.	H. P. Hermansen.
Decatur	Wise	1,047	15	.....	.....	.....	.....	.....	.....	.....	3.90	+ 1.91	2.20	0.0	4	7	13	8	.....	Ft. W. & D. C. Ry.
Del Rio	Valverde	952	5	58.6	+ 5.0	89	3	28	23	43	2.29	+ 0.51	1.65	0.0	10	9	8	11	se.	U. S. Weather Bureau.
Devine	Medina	653	1	62.5	.....	96	2	26	23	44	1.21	.....	0.53	0.0	6	7	8	13	se.	M. A. Keller.
Dialville	Cherokee	575	7	58.6	.....	82	6	24	22†	40	3.55	.....	2.40	0.0	6	10	6	12	n.	J. M. B. McKnight.
Dilley	Frio	569	1	.....	.....	.....	.....	.....	.....	.....	1.85	.....	0.60	0.0	4	.....	.....	.....	.....	John W. Miller.
Dublin	Erath	1,466	15	51.2	+ 5.1	87	1	19	22	36	4.12	+ 3.07	1.87	0.0	4	6[b]	9[b]	11[b]	n.	Jno. O. Shafer.
Duval	Travis	820	22	58.2	+ 5.3	88	2	26	22	32	2.64	+ 0.85	1.00	0.0	6	12	1	15	n.	J. C. Edgar.
Eagle Pass	Maverick	800	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jos. Metcalfe
Edna	Jackson	71	2	.....	.....	.....	.....	.....	.....	.....	2.00	.....	1.40	0.0	4	.....	.....	.....	.....	E. L. Faires.
El Paso	El Paso	3,762	32	47.7	− 1.2	76	4	27	22	35	0.96	+ 0.50	0.62	0.0	3	7	9	12	e.	U. S. Weather Bureau.
Encinal	La Salle	558	3	63.6	.....	95	2	30	24	38	1.43	.....	0.70	0.0	4	10	7	11	n.	H. C. Braden.
Fairland	Burnet	1,000	22	56.5	+ 6.5	88	2	25	22	37	1.66	− 0.44	0.50	0.0	8	10	2	16	n.	R. L. Bush.
Falfurrias	Star	.....	3	67.5	.....	91	1	30	24	48	0.49	.....	0.25	0.0	3	14	8	6	se.	W. A. Gardner.
Flatonia	Fayette	465	3	61.2	.....	85	1	26	23	32	4.38	.....	3.13	0.0	8	7	3	18	s.	Fred W. Laux.
Flint §	Smith	483	1	58.0	.....	84	6	24	22†	35	4.95	.....	2.26	0.0	11	8	4	16	sw.	F. C. C. Carter.
Fort Clark	Kinney	1,050	40	55.2	+ 0.3	88	2	28	22	38	4.18	+ 3.44	1.78	0.0	7	8	10	10	nw.	Post Hospital.
Fort McIntosh	Webb	460	43	67.2	+ 7.0	94	5	34	24	42	1.55	+ 0.52	0.75	0.0	4	10	7	11	ne.	Do.
Fort Stockton	Pecos	3,050	14	52.2	+ 2.5	88	4	20	23	41	2.68	+ 2.28	1.70	0.0	3	3	19	6	ne.	H. H. Butz.
Fort Worth	Tarrant	670	16	53.8	+ 5.7	91	1	20	22	35	3.84	+ 2.57	1.05	T.	11	6	8	14	nw.	U. S. Weather Bureau.
Fredericksburg	Gillespie	1,742	22	53.8	+ 3.2	83	3	22	23	40	1.94	+ 0.47	1.35	0.0	3	6	4	18	n.	Arthur Striegler.
Gainesville	Cooke	738	21	51.6	+ 7.0	92	1	19	22	40	4.11	+ 2.29	1.96	0.0	11	.....	.....	.....	.....	J. L. Hickson.
Galveston	Galveston	69	40	62.2	+ 6.6	75	8	36	22	31	0.69	− 2.41	0.36	0.0	8	8	16	4	se.	U. S. Weather Bureau.
Gatesville	Coryell	795	7	56.4	.....	87	1	22	23	38	2.25	.....	0.55	0.0	6	10	16	2	.....	John Ryan.
Georgetown	Williamson	750	16	55.8	+ 5.9	87	5	23	23	42	1.62	− 0.48	0.91	0.0	9	14	0	14	n.	Prof. R. F. Young.
Gonzales	Gonzales	299	6	.....	.....	.....	.....	.....	.....	.....	2.73	.....	2.13	0.0	5	3	4	21	s.	J. M. Johnson.
Gorham	McLennan	444	2	54.2	.....	82	1	22	22	36	3.22	.....	0.90	0.0	9	1	9	18	s.	John Gorham.
Graham	Young	1,040	12	52.2	+ 6.4	97	1	18	22	47	3.16	+ 2.00	1.05	0.0	8	12	6	10	s.	C. W. Johnson.
Grand Saline	Van Zandt	399	1	.....	.....	.....	.....	.....	.....	.....	3.70	.....	1.82	0.0	5	6	13	9	s.	F. E. Whittemore
Grapevine	Tarrant	670	21	55.4	+ 8.3	90	1	21	22	36	3.77	+ 1.99	1.15	T.	7	1[a]	11[a]	15[a]	n.	W. J. Crowley.
Greenville	Hunt	550	11	53.6	+ 7.6	84	1†	22	22	36	3.35	+ 0.73	1.15	0.0	7	10	0	18	s.	J. P. Regan.
Hallettsville	Lavaca	235	19	62.4	+ 8.2	83	1	28	23	29	2.15	− 0.25	1.57	0.0	5	9	5	14	s.	Dr. J. E. Lay.
Hamlin	Jones	1,685	.....	.....	.....	.....	.....	.....	.....	.....	2.72	.....	1.87	T.	3	11[b]	3[b]	6[b]	.....	W. S. Carruthers.
Harper	Gillespie	.....	1	.....	.....	.....	.....	.....	.....	.....	3.08	.....	1.68	0.0	8	4	0	24	.....	Christian Fritz.
Haskell	Haskell	1,553	16	46.0	+ 1.1	80	15	18	22	36	2.46	+ 1.48	1.78	0.0	4	7	9	12	n.	P. D. Sanders.
Hebbronville	Duval	.....	4	.....	.....	.....	.....	.....	.....	.....	1.80	.....	1.25	0.0	2	.....	.....	.....	.....	Henry Edds.
Hempstead	Waller	254	7	.....	.....	.....	.....	.....	.....	.....	0.75	.....	0.50	0.0	2	4	2	22	s.	J. H. Hancock
Henderson	Rusk	500	2	.....	.....	.....	.....	.....	.....	.....	2.64	.....	1.38	0.0	8	7	8	13	.....	M. Kangerga.
Hewitt	McLennan	664	16	.....	.....	.....	.....	.....	.....	.....	1.48	− 0.76	0.46	0.0	7	.....	.....	.....	.....	I. H. Earle.
Hico	Hamilton	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.63	.....	1.11	0.0	11	16	5	7	.....	John A. Eakins.
Hillsboro	Hill	628	8	57.0	.....	92	8	22	23	45	4.66	.....	1.50	0.0	5	.....	.....	.....	.....	W. G. Escott.
Hondo	Medina	901	12	60.2	.....	85	3	27	23†	35	1.87	+ 0.47	0.50	0.0	6	5	14	9	.....	H. E. Haass.
Houston	Harris	138	21	62.8	+ 7.4	83	14	30	23	32	0.80	− 2.92	0.67	0.0	5	4	13	11	se.	U. S. Weather Bureau.
Huntsville	Walker	400	27	55.9	+ 5.4	89	18	26	23	37	3.04	− 0.25	2.00	0.0	3	10	0	18	se.	W. Y. Barr.
Jayton	Kent	.....	1	.....	.....	.....	.....	.....	.....	.....	3.10	.....	2.50	0.0	4	10	2	16	n.	Wichita Valley Ry. Co.
Jewett	Leon	496	7	58.6	.....	88	7	25	22†	36	3.79	.....	2.35	0.0	7	15	3	10	n.	Earle Adkisson.
Junction	Kimble	1,645	8	51.8	.....	92	1	16	23	50	2.60	.....	1.50	0.0	4	11	1	16	.....	Judge John S. Durst.
Kaufman	Kaufman	448	12	56.0	+ 7.6	82	16	22	22	38	4.76	.....	1.60	0.0	8	6	14	8	s.	B. J. Hubbard.
Keene	Johnson	940	3	.....	.....	.....	.....	.....	.....	.....	3.04	.....	0.85	0.0	7	.....	.....	.....	.....	Industrial Academy
Kerrville	Kerrville	1,650	15	56.2	+ 5.4	89	2	26	23†	45	2.77	+ 1.43	1.10	0.0	5	2	1	25	s.	Mrs. F. Coleman.
Knickerbocker	Tom Green	2,050	7	52.8	.....	92	1	18	23	47	3.64	.....	1.65	0.0	5	12	7	9	n.	Jos. Tweedy.
Kopperl	Bosque	576	14	.....	.....	.....	.....	.....	.....	.....	3.42	+ 0.36	1.30	0.0	7	4	6	18	n.	T. A. Johnson.
Lagrange	Fayette	276	1	.....	.....	.....	.....	.....	.....	.....	3.78	.....	2.83	0.0	7	12	1	15	se.	August Hermes.
Lamesa	Dawson	2,500	1	.....	.....	.....	.....	.....	.....	.....	5.08	.....	1.70	0.0	6	.....	.....	.....	.....	S. D. Austin.
Lampasas	Lampasas	1,026	19	53.8	+ 5.4	87	4	21	23	51	1.66	− 0.37	0.58	0.0	7	7	8	13	n.	Mrs. K. I. Webber.
La Parra	Cameron	38	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John G. Kenedy.
Laureles Ranch	Nueces	20	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Matt Cody.
Liberty	Liberty	38	7	62.4	.....	85	2	22	23	38	0.04	.....	0.04	0.0	1	7	9	12	s.	Mrs. Fannie Sneed.
Llano	Llano	1,040	20	56.8	+ 5.9	90	1	22	23	42	1.09	− 0.10	1.00	0.0	5	17	5	6	e.	E. W. Torrence.
Llano Grande	Hidalgo	86	3	67.6	.....	88	5	32	23	44	0.85	.....	0.70	0.0	2	8	14	6	se.	M. D. Wardlow.
Long Lake	Anderson	229	6	.....	.....	.....	.....	.....	.....	.....	4.55	.....	2.24	0.0	5	6	1	21	s.	Geo. W. Ellis.

TABLE 1.—*Climatological data for February, 1911. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas—Continued.																				
Longview	Gregg	336	25	57.4	+ 8.5	90	3	25	22†	35	6.13	+ 2.41	2.60	0.0	9	6	2	20	se.	C. A. Propst.
Lufkin	Angelina	325	4	60.6	.....	85	16†	24	23	35	1.77	.....	0.50	0.0	6	19	0	9	s.	T. A. King.
Luling	Caldwell	418	22	59.4	+ 6.5	83	1†	25	23	38	2.33	− 0.04	1.52	0.0	9	8	7	13	s.	John Carter.
Marathon	Brewster	4,043	1	46.8	.....	77	1†	18	23	33	2.00	.....	1.40	T.	3	10	11	7	n.	Rev. A. P. Willis.
Marble Falls	Burnet	771	3	.....	.....	.....	.....	.....	.....	.....	1.64	.....	0.76	0.0	6	.....	.....	.....	s.	J. J. Faubion.
Marfa	Presidio	.....	3	.....	.....	.....	.....	.....	.....	.....	1.25	.....	0.75	0.0	2	.....	.....	.....	.....	R. K. Colquitt.
Marshall	Harrison	375	2	57.8	.....	83	1	22	23	36	1.91	.....	0.71	0.0	11	1	17	10	sw.	Lee Scott.
Matagorda	Matagorda	12	1	.....	.....	.....	.....	.....	.....	.....	0.96	.....	0.50	0.0	3	20	1	7	s.	W. E. McNabb.
Medina	Limestone	537	7	55.8	.....	87	6	22	22†	36	3.14	.....	2.15	0.0	6	1	7	20	s.	Miss Josephine Newman.
Midland	Midland	.....	4	.....	.....	.....	.....	.....	.....	.....	2.90	.....	2.00	0.0	2	10	10	8	n.	G. H. Barnes.
Mission	Hidalgo	140	1	67.9	.....	90	1	33	24	42	1.00	.....	0.71	0.0	4	7	8	13	se.	L. H. Romig.
Mont Belvieu§	Chambers	65	1	.....	.....	.....	.....	.....	.....	.....	0.46	.....	0.35	0.0	3	9	10	9	s.	A. R. Shearer.
Mountain View	Pecos	2,900	1	.....	.....	.....	.....	.....	.....	.....	2.84	.....	1.58	0.0	4	.....	.....	.....	.....	Lucius W. Gosselin.
Mount Blanco	Crosby	2,750	22	44.5	+ 3.5	82	1	19	20†	38	4.61	+ 3.79	.....	T.	3	10	6	12	n.	H. C. Smith.
Nacogdoches	Nacogdoches	271	12	58.5	+ 7.8	82	5	22	23	35	2.93	− 0.94	1.68	0.0	5	5	3	20	s.	Miss Mary Hofmann.
New Braunfels	Comal	720	22	59.4	+ 5.9	82	1	26	23	38	2.34	+ 0.65	1.56	0.0	5	5	13	10	s.	J. Giesecke.
Palestine	Anderson	510	29	57.6	+ 6.7	82	3	24	22	26	3.16	− 0.23	2.20	0.0	10	5	9	14	s.	U. S. Weather Bureau.
Painter	Hood	1,000	22	.....	.....	.....	.....	.....	.....	.....	4.39	+ 2.99	0.88	0.0	10	.....	.....	.....	.....	E. H. Snider.
Pearsall	Frio	629	1	.....	.....	.....	.....	.....	.....	.....	1.32	.....	0.55	0.0	5	.....	.....	.....	.....	Earnest De Vilbiss.
Pierce	Wharton	102	5	61.5	.....	83	15	22	23	36	2.55	.....	1.60	0.0	5	5	17	6	.....	R. B. Pointer.
Plainview	Hale	3,370	15	42.2	+ 0.6	82	1	12	22	43	5.83	+ 5.36	3.50	5.0	6	13	6	9	n.	J. F. Sander.
Port Arthur	Jefferson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Griffing Bros. Co.
Port Lavaca	Calhoun	20	10	63.6	+ 7.8	83	14†	30	23	34	0.97	− 1.65	0.82	0.0	2	7	13	8	s.	J. H. Bickford.
Post City	Garza	2,700	1	.....	.....	.....	.....	.....	.....	.....	5.68	.....	2.21	0.0	5	14	7	7	n.	W. L. Dodd.
Raymondville	Cameron	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.77	.....	1.59	0.0	3	1	15	12	se.	C. H. Pease.
Ricardo	Nueces	57	2	66.7	.....	89	1†	32	24	41	1.07	.....	0.52	0.0	5	14	6	8	s.	Lindsay Waters.
Riverside	Walker	169	7	.....	.....	.....	.....	.....	.....	.....	3.23	.....	1.65	0.0	3	6	0	22	s.	Mrs. C. W. Higdon.
Robert Lee	Coke	1,850	12	50.2	+ 2.8	89	1	20	22	40	4.68	+ 3.65	3.35	0.0	3	9	7	12	n.	H. D. Pearce.
Rockland	Tyler	136	7	.....	.....	.....	.....	.....	.....	.....	2.60	.....	1.50	0.0	5	6	10	12	s.	D. W. Bellamy.
Rockport	Aransas	12	10	62.0	.....	78	17	32	20†	24	1.20	− 0.91	0.80	0.0	2	13	10	5	se.	Mrs. G. B. Grewe.
Rossville	Atascosa	558	4	59.8[e]	.....	96	2	26	23	57	2.15	.....	1.50	0.0	4	4[e]	12[e]	7[e]	e.	W. F. M. Ross.
Runge	Karnes	308	16	.....	.....	.....	.....	.....	.....	.....	1.71	− 0.94	1.45	0.0	2	.....	.....	.....	.....	Reiffert & Frobese.
Sabinal	Uvalde	964	7	62.0	.....	92	14	26	23	52	1.88	.....	0.50	0.0	10	8	5	15	n.	Jas. Johnston.
Salado	Bell	.....	1	.....	.....	.....	.....	.....	.....	.....	1.94	.....	0.75	0.0	4	11	3	14	s.	L. M. Crockett.
San Angelo	Tom Green	1,847	20	50.6	+ 1.2	90	1	21	22	43	3.63	+ 2.78	1.80	0.0	5	11	10	7	n.	Sam Crowther.
San Antonio	Bexar	701	26	60.1	+ 5.7	85	1	29	23	35	1.66	− 0.12	0.96	0.0	9	4	10	14	se.	U. S. Weather Bureau.
San Augustine	San Augustine	360	2	60.0	.....	84	1	20	23	35	2.64	.....	0.69	0.0	8	5	7	16	.....	F. A. Wilson.
San Juanito§	Hidalgo	.....	2	69.4	.....	92	1	34	24	44	0.56	.....	0.20	0.0	5	3	8	17	se.	J. B. McAllen.
San Marcos	Hays	588	18	59.6	+ 8.7	97	5	27	23	38	1.57	− 0.42	1.27	0.0	2	10	0	18	n.	Miss L. C. Ford.
San Saba	San Saba	1,712	7	54.7	+ 5.6	90	1	17	23†	42	2.92	+ 1.26	1.40	0.0	10	12	5	11	s.	Jas. Burns.
Santa Gertrudes	Nueces	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. B. Wright, jr.
Sealy	Austin	201	.....	.....	.....	.....	.....	.....	.....	.....	1.80	.....	1.22	0.0	10	8	7	13	s.	O. H. Albert.
Seymour	Baylor	1,320	5	.....	.....	.....	.....	.....	.....	.....	1.70	.....	1.10	0.0	4	.....	.....	.....	.....	S. C. Lee.
Somerville	Burleson	251	2	57.6	.....	85	2	28	23	43	2.88	.....	2.80	0.0	3	3	0	25	n.	W. A. Dolan.
Sonora	Sutton	2,200	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mike Murphy.
Sugarland	Fort Bend	79	13	62.0[e]	+ 8.4	88[e]	11	27	23	40[e]	0.60	.....	0.30	0.0	2	5[e]	0[e]	16[e]	se.	Cunningham Sugar Co.
Sutherland Springs§	Wilson	.....	1	62.8	.....	85	1	27	23†	38	2.74	.....	2.00	0.0	7	8	2	18	s.	W. A. Clark.
Taylor	Williamson	583	10	57.2	+ 5.9	83	1	25	23	31	1.65	− 0.93	0.85	0.0	11	9	6	13	n.	U. S. Weather Bureau.
Temple	Bell	630	21	56.2	+ 8.0	79	1†	25	22†	25	1.83	− 0.34	0.92	0.0	6	7	9	12	.....	W. Goodrich Jones.
Theodore	Winkler	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. Gibbs.
Thurber	Erath	.....	1	.....	.....	.....	.....	.....	.....	.....	4.95	.....	2.61	0.0	7	.....	.....	.....	.....	J. K. Ball.
Tilden	McMullen	.....	5	63.4[d]	.....	96[d]	4	27	24	51[d]	1.37	.....	1.05	0.0	5	3[e]	10[e]	12[e]	se.	Wm. Kuykendall.
Tivoli	Refugio	.....	1	.....	.....	.....	.....	.....	.....	.....	1.17	.....	0.93	0.0	3	5	16	7	s.	W. H. Gisler.
Uvalde	Uvalde	937	3	60.8[b]	.....	96	3	25	23	48	2.48	.....	1.68	0.0	5	3[d]	13[d]	8[d]	se.	F. M. Getzendaner.
Valley Junction	Robertson	289	11	.....	.....	.....	.....	.....	.....	.....	2.50	− 0.75	1.90	0.0	4	9	4	15	n.	T. M. Williams.
Victoria	Victoria	187	12	64.2	+ 8.6	87	5	30	23	31	2.00	− 0.62	1.40	0.0	2	4	1	23	s.	C. C. Zirjacks.
Waco	McLennan	424	22	55.2	+ 5.3	85	3	25	23	36	2.88	+ 0.54	0.90	0.0	5	12	0	16	s.	E. H. Hall.
Waxahachie	Ellis	556	14	54.2	+ 4.5	87	4	21	22†	45	3.28	+ 1.34	1.19	0.0	7	9	3	16	n.	C. D. Longserre.
Weatherford	Parker	864	22	51.0	+ 5.9	90	1	20	22	37	5.53	+ 4.18	1.84	0.0	7	9	4	15	n.	Miss J. Stickfort.
Wharton	Wharton	105	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. F. M. Hughs.
Wills Point	Van Zandt	524	6	57.4	.....	90	7	23	22	39	3.09	.....	1.40	0.0	5	8	10	10	s.	W. W. Gibbard.
Zapata	Zapata	300	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. H. Earnest.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
¶ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 8, Texas and Rio Grande Valley.*

Stations.	Watershed.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Colorado.																													
Blanca	Rio Grande				.24									.04			.20	.10	.04	T.	.02	.01	T.			.03	T.		.32	1.00
Cumbres	do	T.			.91	.24						.60	.35	.48	.07	.59	.05	.21	.21	.01	.02	T.		T.	1.03	.92	.03	.26	5.98
Garnett	do											*	.08			*	*	.22			.12				.08				0.50
Hermit	do																												
La Veta Pass	do				.28									.32			.17	.32	.60	.11	.23	.11			.34	.14	.12		2.74
Manassa	do				.07	.05								T.			.13	.28				.05			.02				0.60
Platoro	do	.57			.77	.50							.56	.19	.10	.36	.35		.12	T.	T.	.55			.28	.59	.08	.73	5.75
Saguache	do				T.	.10							T.					.15	.10	.17	.11	.25		.15	.10	T.		T.		1.13
San Luis	do				.30									.09			.02	.32	.07	.01	.04	.08	.10			.05	.01		.34	1.43
Wagon Wheel Gap Experiment Station	do	.20			.41								.63		.02	.30	.54		.09	.05	T.	T.			.04	.08	.30	.17	.13	2.96
New Mexico.																													
Agricultural College	Rio Grande																	*	.36		.07							*	.35	0.78
Alamogordo (near)	do	.04									.06			.03				.03	.50	.40	.03	.05	.02	T.					.80	1.96
Alamogordo	do	T.									.05							T.	.40	.20	T.	T.							.75	1.40
Alamos Ranch	do				.13								T.	.18			.32		.44	.06	.03	.50				.03			.32	2.01
Albuquerque	do				T.									.30			.14		.39	.20	T.	T.	.05					.05	.60	1.73
Ancho	do													.18				*	.32							.08			.16	0.74
Artesia	Pecos										.16							.63	.90				.03							1.72
Aspen Grove Ranch	Rio Grande	.14				.86								.11			.78		.11	.44	.43	.42	.07	.04		.27	.38	.04	.44	4.53
Batemans Ranch	do	T.			.48	.32							T.	.52	T.		.52		.10	.40	.30	T.				.38	.30	T.		3.32
Bluewater	do				.05	.06													.35	.20	.38	.33	.09			.09		T.	.48	2.03
Boaz	Pecos										.16							.22	.47										.11	0.96
Capitan	do																												
Carlsbad	do								.30	.19				.02			T.	.62	.62	T.			.03						.04	1.82
Carrizozo	Rio Grande													.55					.18									*	.50	1.23
Carson Park	do				*	.28							*	.45			.24		*	*	.43							*	.85	2.25
Chama	do				.32	.16							.08	.10	.07		.35			.24	.24	.12						T.	T.	1.68
Cloudcroft	Pecos										.44		.28				*	.60	.61	.11		.04						*	1.03	3.11
Corona	do																	*	.98	.07	.18							.12	.28	1.63
Coyote	Rio Grande																		.18	.02								*	.59	0.79
Cundiyo	do					.13								.24			.11	.17	.35	.10	.06	.17							.50	1.83
Demonstration Farm	Pecos																.13	*	1.80		.60								.10	2.63
Duran	do	T.				T.											T.	.05	1.20	.10	.20				T.		T.	.50	2.05
Elk (near)	do																												
Escondido	Rio Grande										T.							1.00	.41	.51								T.	1.92
Espanola	do				.05	T.								.04			.05	.30	.15	.03	.05	.02							.30	0.99
Estancia	do																	*	.81	*	.30	.12			.25				.52	2.00
Fort Stanton	Pecos					T.					T.	T.		.08				T.	1.00	.07	.02	.25	T.						.40	1.82
Fort Sumner	do											T.					.15	.99	.16						T.		.13	.20	T.	1.63
Gallinas	do																	.30	.55	.40								.30	.45	2.00
Gallinas Planting Sta	do					.01	T.											.34	.80	.19	.29	T.							.28	1.91
Glorieta Ranch	Rio Grande													.10	T.		.28	.18	.20	.69	.21	.72	.02			.10		*	.74	3.24
Harvey's Upper Ranch	Pecos	.07			.11	.06							T.	T.			.14	.23	1.08	.22	.33		T.			.27			.53	3.04
Hillsboro	Rio Grande																												
Hodges	do														T.	*	.69		T.	*	.98	T.				.21		*	.57	2.45
Hondo Reservoir	Pecos										.08						T.	.54	.72			.07	.18					T.	.14	1.73
Hope	do																												
Jemez Springs	Rio Grande													.15			.60		*	.63	.19	.24				.10			.60	2.51
Knowles (near)	Pecos										.62						T.	.94	.32			T.				T.		T.	T.	1.88
Laguna	Rio Grande																T.		.18	.12	.21	.42							.77	1.70
Lagunita	Pecos																	1.25					.07					*	.24	1.56
Lake Valley	Rio Grande	T.											T.	T.			.16	.35	.64	.05	.03	.05	.11	T.	T.			*	.72	2.11
Las Vegas	Pecos				T.										T.		T.	.16	.72	T.	.08	.10	T.					.02	.25	1.33
Liston	do										.20							*	.65									T.	T.	0.85
Los Lunas (near)	Rio Grande				T.								.05				.07	.64	.04	T.	.14	T.			.02			.44	.15	1.55
Magdalena	do												T.				.25	.15	.50	.10		.20							.40	1.60
Mineral Hill	Pecos																.22	*	1.35		.35								.35	2.27
Monterey	Rio Grande	T.									T.		.15				T.	T.	.44	.25	T.	T.						T.	.83	1.67
Mountainair	do	T.			T.	T.								.19		T.	T.		1.09	.11	.09	.69				T.		T.	.16	2.73
Newman	do										T.							1.00	.40	.05		T.							.32	1.77
Noria	do																	*	.75	.07								*	.08	0.90
Orange	do																												
Orogrande	do										T.							*	1.25	.12	T.							.25	1.62
Oscura	do													.36				.08	.31	.03		.19							.99	1.96
Otis	Pecos										.52	.02						.79	.85		T.								.06	2.24
Otto	Rio Grande													.20				.11	.80		.50	.10				.05			.90	2.46
Pastura	Pecos																	*	1.50		*	.10						*	.30	1.90
Placitas (near)	Rio Grande				.20	.05								.20			.04	.18	.92	.04	.50	.20	.22			1.00			.70	4.31
Plainview	Pecos																												
Red River Canyon	Rio Grande				.31	.04							*	.85		.53	.60	.18	.43	.12						.43	T.	.53		4.02
Rincon	do	T.																T.	.62	.05	T.	.06						*	1.00	1.73
Rio Grande Dam	do												T.				T.	.09	.81	T.	.10	.10	.03					*	.67	1.80
Rosedale	do	.01											T.	T.			.30	.01	.73	.29	.03	.26	.01					*	.51	2.15
Roswell	Pecos										.13						.10	.74	.53	T.	T.	.24						.04	.14	1.92
San Marcial	Rio Grande																												
San Rafael	do				T.							T.				T.	.03		.24	.10	.72	.40							.28	1.87
Santa Fe	do				.08	T.							.23	T.			.15	.12	.76	.05	T.	.01	T.			.06		.12	.41	1.99
Santa Fe Canyon	do				T.									.40			.40	.30	1.00		T.	T.	T.			.10			.60	2.80
Santa Rosa	Pecos																	.14	1.08	.25		.03	T.					.07	.31	1.88
Socorro	Rio Grande													.12			.09		.90	.16	.15	.06	.05						.75	2.28
Stanley	do												.20				.12	1.42	.04		*	.20						*	1.03	3.01
Strauss	do																	.52	.04	.09								.06	.17	0.88
Swastika Ranch	do																												
Taft	Pecos										.01							.34	.22			.09							.91	1.57
Tajique (near)	Rio Grande				.01								.13				.06	.30	1.20	.21	.23					.09			.84	3.07
Taos	do				.11	.22							.47				.18		.20	.08	.03					.09		*	.62	2.00
Taos Canyon	do				.22	.29							T.	.40		T.	.15		.41	T.	.02	.12	T.			.22	T.		.62	2.45
Tecolote	do													.06				.23	.72	.09	.11	.19						.54	.09	2.03
Three Rivers	do											T.	.08					.04	.58	.22	.05	.05	.02			T.			.83	1.87
Tijeras Canyon	do				T.								.30				.13	T.	1.20	.12	T.	.18			.15				1.00	3.08
Torrance	Pecos												T.					*	1.80	.01	.02				T.			*	1.01	2.84
Tres Piedras	Rio Grande	T.			.25	T.											.50	.60	.10	T.	.10	T.	T.			.20	.35	T.	.40	2.50
Truchas	do				.20	T.								.40			.15		.15	.20	.40	T.		T.					.60	2.10
Tularosa	do													.10				T.	.40	.30	.01	.04	T.						.77	1.62
Vaughn	Pecos																	.08	.80	T.	.42	.06						.32		1.68
Virsylvia	Rio Grande				.32									.28			.44	.12	.02		.01	.12				.02			.25	1.58
Winsors	Pecos				.11	.08								.03			.17	.62	.83	.02	.58	.26				.26			.98	3.49

TABLE 2.—*Daily precipitation for February, 1911. District No. 8*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Texas.																														
Abilene	Brazos								.54		.66			T.		T.	T.	.87	.88	T.						T.		T.	.07	3.02
Albany	do								.54		.85							1.25											.10	2.74
Alvin	Coast									.15		.27								.50										0.92
Anahuac	do																			.40							.15	.16		0.71
Antelope	Trinity								.12					.02				1.10	.13						T.			T.	.07	1.44
Austin	Colorado								.10		.64	.09		.08		.02		.72	.11	.79								.05	.05	2.65
Ballinger[‖]	do								1.40	1.30		.55							1.30									T.	4.55
Barstow	Pecos										.99							.85	.53									.02	2.39
Bay City[‖]	Colorado									.10	.23				T.					.62							T.			0.95
Beaumont[‖]	Neches																													
Beeville[‖]	Coast									.10	.20	.14	T.	T.				T.	.02	1.63								T.	T.	2.09
Big Springs	Colorado								.06		.91	.02						2.33	.84							T.		T.	.04	4.20
Blanco[‖]	Guadalupe								.04	.12	.26	.27						.38	.71	.75										2.53
Boerne	San Antonio							T.	.08	.07	.10	T.	T.	.02		T.	.25	.70	.80									.02	.13	2.17
Booth[‖]	Brazos										.19	.12	.06						.06	1.15										1.58
Bowie	Trinity								.26		.77		.05	.04					1.23	1.03						.02		T.		3.40
Brazoria	Brazos										.38	.50		T.	.02				T.	.67						T.				1.57
Brazos[‖]	do									.87		1.05							.06	1.01										2.99
Brenham[‖]	do							T.	T.	.20	.13	.40			.02			T.	.03	1.67						T.	.06	.02	2.53
Bridgeport[‖]	Trinity								.25		.93			T.				.95	.90								.10	.10	3.23
Brighton	Coast											.90								.48										1.38
Brownsville	Rio Grande									.66	1.21						T.	T.		.18	T.									2.05
Brownwood[‖]	Colorado							.32	.72			1.01			.05		T.	T.	1.04	1.08									.07	4.29
Cameron[‖]	Brazos									.16	T.	.58	.01		.17				.01	2.43	T.							.02	.09	3.47
Carmona	Neches						T.		.25	.30	.06	.20	T.	T.	.18	T.		.04	.11	.71							.08	T.		1.93
Claytonville	Brazos								.22	.70								1.38	2.73											5.03
Coleman	Colorado							.46	1.24		.75							T.	.50	T.						T.			.15	3.10
College Station	Brazos								.19	.11	.30	.20		.09	.02	T.		.06		2.33								T.	.20	3.50
Colorado	Colorado								1.42									1.36	2.06											4.84
Columbia	Brazos									.15	.20	.50								.75										1.60
Columbus[‖]	Colorado									T.	.38	.14	T.		.08				.06	1.58								.04	.04	2.32
Corpus Christi	Coast									.12	.26	.02	T.		T.			T.	T.	.32										0.72
Corsicana[‖]	Trinity								.10	1.40	.02	.55	T.		.05				T.	1.40							T.	.09	.08	3.69
Crockett	do							T.	.38	.28	.11	.19		.03		T.		T.	.07	1.30							.11		T.	2.47
Cuero[‖]	Guadalupe									.05	.07	.11	.02	.01						2.00										2.26
Dallas[‖]	Trinity									.87		.68		.03	.23		.04		.03	.96							.02		.12	2.98
Danevang	Coast									T.	.65									1.25										1.90
Decatur	Trinity										1.20			.30					2.20										.20	3.90
Del Rio	Rio Grande								.10		.17		.03	.01		.01	.05	1.60	.24	.01								T.	.07	2.29
Devine	Nueces						T.	T.	T.	.19	.18	.10	T.	T.				T.	.10	.53						T.	T.	T.	.11	1.21
Dialville	Neches								.45	T.	.45	.05			.10	T.		T.	2.40	.10						T.	T.	T.		3.55
Dilley	Nueces									.60		.45						.60											.20	1.85
Dublin[‖]	Brazos								.13	1.20		.92						T.	1.87	T.									T.	4.12
Duval	Colorado								T.	T.	.75	.14		.15		T.		.43	.17	1.00						T.	T.	T.		2.64
Eagle Pass	Rio Grande																													
Edna	Lavaca								.40					.10					1.40				.10							2.00
El Paso	Rio Grande										T.		T.					.55	.19			T.						T.	.22	0.96
Encinal	Nueces									.28	.39	.06								.70										1.43
Fairland	Colorado									.10	.31	.19		.12		T.	T.	.02	.30	.50								T.	.12	1.66
Falfurrias	Coast									.20	.05									.24										0.49
Flatonia	Guadalupe								T.	.14	.39	.21		.28				.07	.03	3.13							T.		.13	4.38
Flint	Neches						T.		.27	.40	.08	.23	T.	.18		.06			T.	2.26						.01	.02	1.42	.02	4.95
Fort Clark[‖]	Rio Grande								.60	.80	.18	.54	.06					1.78											.22	4.18
Fort McIntosh	do									.75	.05		.05							.70										1.55
Fort Stockton	Pecos										.48							1.70	.50			T.						T.	2.68
Fort Worth	Trinity								.73	.03	.89	.12		.10		.16		.05	1.00	.17								.03	.56	3.84
Fredericksburg	Colorado										.48			.11				T.	1.35									T.	1.94
Gainesville	Trinity								.03	.07	.18	.78		.06		.65	.02	.02	1.96	.14									.20	4.11
Galveston	Coast			.01						.01	.03	.18	.01							.36						T.	.05	.04		0.69
Gatesville	Brazos									.35	.45	.30		.10					.50		.55									2.25
Georgetown[‖]	do								.02	.04	T.	.51			.02		.03	T.	.04	.91								.01	.04	1.62
Gonzales[‖]	Guadalupe										.31	.16			.04					2.13									.09	2.73
Gorham[‖]	Brazos							.20	.28	.32	.27	.38		T.		T.		.30	.90									.30	.27	3.22
Graham	do								.20	.23	.68	.40		T.		.35		.15	1.05	T.								T.	.10	3.16
Grand Saline	Sabine						T.	T.	.86	.40	.40		T.	T.	T.	T.	T.		1.82	T.						T.	.22	T.		3.70
Grapevine	Trinity							.81	.62		.26			.03		.55			1.15	T.					T.			T.	.35	3.77
Greenville[‖]	Sabine								.35	.55		.75			.35		.05			1.15									.15	3.35
Hallettsville	Lavaca						T.		T.	T.	T.	.10	T.	.33				T.	.10	1.57								T.	.05	2.15
Hamlin	Brazos								.25		.60							1.87		T.								T.		2.72
Harper	Colorado								T.	.25	.31	.03		.13				.03	1.68	.25									.40	3.08
Haskell[‖]	Brazos								.17		.51							.25	1.53											2.46
Hebbronville	Coast									1.25									.55											1.80
Hempstead[‖]	Brazos									.50	.25	T.			T.		T.		T.		T.					T.		T.		0.75
Henderson	Neches								.47		.34	.08	.10			.06		T.		1.38						.01	.20			2.64
Hewitt	Brazos								T.	.20	.19	.25		T.		T.	T.	.03	.13	.46							T.	T.	.22	1.48
Hico	do							.04	1.11	.24	.63	.35	T.	.01		.04		.01	.80	.21								T.	.19	3.63
Hillsboro	do									1.50		.87								1.01	.61								.67	4.66
Hondo	Nueces							T.	T.	.20	.40							.50	.07	.47								T.	.23	1.87
Houston	Coast				T.					.03	.08	T.	.01	T.	T.		T.	T.	T.	.67						T.	.01	T.		0.80
Huntsville[‖]	Trinity									.62		.42								2.00								T.		3.04
Jayton	Brazos										.50							*	2.50										.10	3.10
Jewett[‖]	Trinity									.37	.41	T.		.31		T.		.10	2.35	T.							.10	T.	.15	3.79
Junction	Colorado										.40			.50					1.50	.20										2.60
Kaufman	Trinity								.65	.40	.26	.26		.40		T.		T.	.19	1.00						T.	T.	T.	1.60	4.76
Keene	Brazos									.85	.33	.42		.15		.27			.67										.35	3.04
Kerrville[‖]	Guadalupe										.43	.30			.05				1.10	.89										2.77
Knickerbocker	Colorado							T.	.82	.02	.45			T.		T.		.70	1.65						T.		T.	T.	3.64
Kopperl[‖]	Brazos								.10	1.30		.80			.12				.20	.80									.10	3.42
Lagrange	Colorado								.24		.27	.19	T.	.05		T.		T.	.02	2.83								T.	.18	3.78
Lamesa	do								.07		.85						1.70	1.60	.76										.10	5.08
Lampasas[‖]	Brazos							.08		T.		.54	.02					.10		.29	.58								.05	1.66
La Parra	Coast																													
Laureles Ranch	do																													
Liberty[‖]	Trinity				T.			T.	T.		T.		T.		T.	T.			T.	.04							T.	T.		0.04
Llano	Colorado								T.	T.	.04	.02		T.	T.			T.	1.00	.02									.01	1.09
Llano Grande[‖]	Rio Grande									.70									.15										T.	0.85
Long Lake[‖]	Trinity									.20		.50	1.21		.40					2.24										4.55
Longview[‖]	Sabine									1.02		.30	.07		.47					2.60	.12						.04	1.46	.05	6.13
Lufkin	Neches								.23	.29		.28		.14						.50						.33				1.77
Luling[‖]	Guadalupe									.06	.20	.20				.05		.07	.08	1.52								.07	.08	2.33
Marathon	Rio Grande										.10							1.40	.50	T.		T.								2.00
Marble Falls[‖]	Colorado									.01	.20	.05	.25							.37	.76									1.64
Marfa	Rio Grande																	.50	.75											1.25

TABLE 2.—*Daily precipitation for February, 1911. District No. 8*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Texas—Continued.																														
Marshall	Sabine								.18	.30	.02	.31		.05	.01	.03				.71						.05		.21	.04	1.91
Matagorda	Coast										.35	.11								.50										0.96
Mexia	Brazos						T.		.07	.30		.47							.10	2.15									.05	3.14
Midland	Colorado										.90							2.00												2.90
Mission‖	Rio Grande									.71	.15	.04								.10										1.00
Mont Belvieu	Coast									.09	.02								T.	.35										0.46
Mountain View	Pecos										.66			T.			.17	1.58	.43										T.	2.84
Mount Blanco	Brazos										.20						*	4.41											T.	4.61
Nacogdoches‖	Neches						T.			1.68		.32			.31					.22	T.						T.	.40	T.	2.93
New Braunfels	Guadalupe								T.		.40	.12						.10	T.	1.50									.16	2.34
Palestine	Trinity								.23	.07	.29	.08		.19		T.		.04	1.43	.77						T.	.04	T.	.02	3.16
Panter	Brazos								.73	.05	.88			.05		.15	.05	.40	.52	.70									.86	4.39
Pearsall	Nueces									.31	.12							.14	.58										.20	1.32
Pierce	Colorado										.38	.36		.13					1.60										.08	2.55
Plainview	Brazos										.70	.05					.46	3.50	.94							T.		T.	.18	5.83
Port Arthur	Coast																													
Port Lavaca	....do									T.	.15									.82										0.97
Post City	Brazos										.65	.07				1.59		2.21	1.16										T.	5.68
Raymondville‖	Coast										1.59	.04								.14								T.		1.77
Ricardo	....do									.10	.52	.08						.02		.35								T.		1.07
Riverside‖	Trinity									1.65	.30									1.28								T.		3.23
Robert Lee‖	Colorado									.55		.78							3.35											4.68
Rockland‖	Neches									.35		.13	T.			.22								.40			T.	1.50		2.60
Rockport	Coast											.40								.80										1.20
Rossville	Nueces									.33		.22	T.							1.50	T.								.10	2.15
Runge	San Antonio																	.26	1.45											1.71
Sabinal	Nueces								.03	.02	.26	.14		.05		.05		.12	.54	.50									.17	1.88
Salado	Brazos										.44			.15					.75	.60										1.94
San Angelo	Colorado							.62	.65	.02	.54				T.			T.	1.80							T.		T.	T.	3.63
San Antonio	San Antonio							T.	.01	.20	.15	.06		.01		T.		.22	.71	.25							T.	T.	.05	1.66
San Augustine	Neches						T.		.28	.40	T.	.44			.32	T.		T.		.47						T.	.69	.02	.02	2.64
San Juanito	Coast									.08	.20	.04			T.					.13									.11	0.56
San Marcos‖	Guadalupe											.30								1.27										1.57
San Saba	Colorado								.08	.14	.36	.17		.01		.03		.14	1.40	.24									.35	2.92
Santa Gertrudes	Coast																													
Sealy	Brazos							T.		.05	.21	.12		.03	.01			.04	.08	1.22							.03	.01	T.	1.80
Seymour	....do										.50	T.		T.				*	1.10	T.									.10	1.70
Somerville	....do								T.	T.	T.	.06						T.	2.80										.02	2.88
Sonora	Rio Grande																													
Sugarland‖	Brazos																			.30							.30			0.60
Sutherland Springs	San Antonio									.20	.23	.03						.08	.04	2.00									.16	2.74
Taylor	Brazos								.02	.05	.47	.04	T.	.05		.02	T.	.08	.28	.57							T.	.02	.05	1.65
Temple‖	....do							T.	.02			.55			.15			.06		.92									.13	1.83
Theodore	Pecos																													
Thurber	Brazos								.73	.32	.50	.51						.09	2.61										.19	4.95
Tilden	Nueces									.12	.11	.03					T.		T.	T.	1.05								.06	1.37
Tivoli‖	Guadalupe									.14	.10								.93											1.17
Uvalde	Nueces	T.						T.	T.	T.	.18	T.	T.	.27		T.		.08	1.68	.27									T.	2.48
Valley Junction‖	Brazos															.20			.20	1.90									.20	2.50
Victoria‖	Guadalupe										.60									1.40										2.00
Waco‖	Brazos								.34	.62		.62	T.							.90									.40	2.88
Waxahachie‖	Trinity								.24	.77		.67			.07		T.		.11	1.19							T.	T.	.23	3.28
Weatherford‖	....do									.84		1.15			.14		.55		.82	1.84							T.		.19	5.53
Wharton‖	Colorado																													
Wills Point	Sabine					T.	T.		T.	.91	.50			.10					1.40							T.	T.	.18		3.09
Zapata	Rio Grande																													

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 8, Texas and Rio Grande Valley.*

Date.	Colorado.				New Mexico.														Texas.							
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Browns-ville.		Corpus Christi.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	51	31	51	35	71	35	87	43	74	33	50	37	55	39	77	48	52	32	66	43	89	63	80	53	81	67	77	66
2....	50	7	48	16	69	33	78	45	64	30	55	26	53	30	72	38	49	26	63	28	67	48	78	47	82	67	79	67
3....	51	33	49	24	73	41	82	57	63	42	58	35	58	40	74	34	51	31	66	28	77	54	79	47	80	66	80	65
4....	38	25	41	29	76	44	86	47	64	30	54	35	60	41	79	41	48	35	69	40	75	50	82	45	82	64	75	64
5....	47	13	42	24	66	35	78	59	70	35	54	32	50	31	67	39	41	29	59	40	76	57	75	42	80	68	76	68
6....	47	9	45	18	62	25	64	35	54	23	55	20	52	28	64	29	47	24	65	31	70	47	74	44	82	69	76	69
7....	47	10	45	21	67	34	77	43	65	25	57	28	50	31	67	32	50	22	60	28	74	49	74	42	81	69	76	70
8....	45	7	48	17	68	34	63	31	60	28	56	22	52	26	58	33	46	18	56	27	50	38	61	39	83	63	76	68
9....	43	3	48	9	59	32	49	37	63	16	54	20	49	24	51	23	45	18	54	22	53	33	52	31	77	61	68	54
10....	46	4	48	14	58	35	67	36	48	24	51	24	46	29	39	32	46	21	48	22	45	38	48	36	68	58	67	54
11....	54	5	49	21	70	35	63	42	55	19	58	24	55	29	63	34	51	24	66	23	51	38	58	38	72	59	66	53
12....	46	18	49	21	73	37	74	47	60	30	60	34	55	37	68	34	54	30	69	29	63	43	65	42	81	60	68	58
13....	47	13	41	22	54	36	73	36	64	27	52	22	48	24	62	38	38	24	53	33	63	51	61	50	80	70	77	68
14....	45	4	36	20	63	24	76	41	54	24	57	25	49	22	72	26	43	21	60	30	73	44	73	40	83	70	73	66
15....	46	12	41	18	66	24	72	39	59	22	49	37	52	28	69	29	49	29	67	33	73	51	78	52	83	71	74	70
16....	40	21	37	26	54	40	69	52	61	38	43	30	46	31	64	47	45	34	55	35	79	64	74	59	80	72	74	70
17....	48	23	40	26	58	36	66	42	53	36	38	27	41	27	47	34	44	32	37	32	70	39	69	41	80	72	75	70
18....	35	19	36	20	49	36	45	33	40	27	34	22	38	27	38	27	34	16	34	30	46	38	46	36	80	70	74	70
19....	25	6	26	10	38	29	40	29	37	13	24	11	27	11	31	25	23	11	31	8	38	28	46	30	74	57	72	42
20....	29	3	23	6	42	34	39	27	33	2	24	8	27	15	32	22	26	10	28	3	36	23	37	22	61	39	50	37
21....	24	7	26	4	38	30	38	24	26	9	12	5	26	15	30	22	21	− 2	25	4	35	24	35	22	49	42	47	41
22....	25	−13	24	−10	42	27	36	23	20	− 4	11	− 2	27	2	31	16	23	0	25	− 2	37	19	40	19	54	44	48	39
23....	27	−16	27	−18	41	23	44	21	30	0	20	− 2	31	8	31	20	32	6	33	0	44	21	46	19	57	44	56	39
24....	28	−13	35	−14	47	32	45	30	37	13	38	11	31	20	41	28	31	11	31	3	51	28	50	29	62	38	55	40
25....	38	6	33	15	50	29	60	33	40	22	38	22	38	18	57	30	32	22	43	18	67	43	64	36	73	44	73	52
26....	32	4	32	6	62	21	63	28	45	24	44	14	45	26	65	24	38	18	37	19	61	38	65	35	80	65	68	61
27....	39	9	33	21	66	35	57	39	50	22	41	21	50	23	40	33	38	28	32	27	45	35	54	33	77	64	69	63
28....	42	26	39	24	49	41	42	34	35	25	37	21	45	31	33	30	32	15	28	19	35	28	34	29	79	70	72	58
Mns..	40.5	9.9	39.0	15.2	58.2	32.8	61.9	37.6	50.9	22.7	43.7	21.8	44.9	25.5	54.4	31.0	40.3	20.9	48.6	23.3	58.7	40.4	60.6	37.8	75.0	60.8	69.3	58.6

Date.	Texas.																									
	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		[1]Haskell.§§		Taylor.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	83	54	68	50	92	64	87	50	91	58	72	65	83	64	82	58	81	60	80	63	82	39	85	59	60	52	83	61
2....	89	52	69	46	88	59	80	45	72	54	72	65	82	67	83	65	80	63	81	61	72	38	83	65	57	47	82	60
3....	89	52	71	47	93	63	84	49	84	49	71	65	82	65	79	64	82	62	82	57	71	41	85	56	60	47	81	58
4....	88	51	76	47	92	54	88	48	75	45	70	64	80	59	77	63	79	56	74	52	70	40	81	57	64	47	77	50
5....	84	63	64	47	94	65	80	49	79	64	72	65	81	66	80	64	83	63	79	64	69	49	84	66	60	48	83	65
6....	87	50	61	34	92	60	77	39	78	50	74	67	80	66	81	64	76	67	81	66	68	29	77	62	60	40	83	59
7....	82	60	69	45	89	67	80	50	78	52	74	67	81	68	80	65	81	65	77	64	62	34	81	67	43	40	79	66
8....	70	52	68	46	88	59	70	48	55	42	75	68	80	66	80	63	80	54	69	50	52	27	71	55	43	40	56	47
9....	52	47	54	40	87	54	54	30	57	40	68	54	66	50	63	52	58	46	56	45	56	20	55	49	48	28	54	44
10....	49	45	52	40	74	50	48	41	51	38	63	52	51	47	55	47	60	44	51	41	47	27	49	45	58	29	49	43
11....	56	48	69	35	60	49	68	39	47	37	63	50	57	47	58	47	56	40	54	39	62	31	62	44	50	38	52	42
12....	59	51	70	43	63	49	82	45	59	47	65	51	61	52	63	49	61	43	58	42	64	34	62	49	56	45	63	48
13....	76	49	54	35	81	60	65	49	68	55	72	64	79	59	78	59	84	58	76	55	61	43	72	56	70	38	73	52
14....	81	38	63	35	84	55	79	39	75	49	73	67	79	50	83	61	82	47	78	52	72	30	81	46	70	39	78	47
15....	78	62	67	33	90	69	80	39	73	59	73	68	80	69	80	67	84	65	78	63	67	30	80	67	80	64	77	68
16....	82	68	60	48	89	63	77	55	77	67	73	68	82	70	81	68	85	65	80	66	65	49	79	69	71	64	80	70
17....	73	54	54	39	85	62	67	50	75	64	74	68	79	70	80	66	85	65	78	64	57	35	74	68	52	41	78	68
18....	69	49	49	36	87	63	51	40	68	45	74	68	78	70	78	66	85	45	77	54	38	31	72	53	40	40	71	47
19....	54	38	39	30	74	52	49	30	46	29	71	40	70	45	70	38	45	41	54	35	35	20	53	37	36	30	47	34
20....	51	34	38	30	57	39	37	28	37	25	48	39	47	35	50	36	45	35	40	32	30	16	50	34	35	23	43	31
21....	43	36	33	28	51	40	34	25	37	25	50	39	47	34	50	33	47	29	42	28	27	17	44	33	38	24	43	29
22....	47	33	40	27	52	41	34	25	40	20	47	36	48	32	46	33	45	26	39	24	32	12	49	32	46	18	43	26
23....	55	28	41	29	59	40	40	20	49	27	51	37	51	28	55	30	54	24	49	26	40	15	54	29	56	20	50	25
24....	57	30	43	32	68	34	50	26	57	29	56	44	57	32	62	36	60	29	56	32	45	25	57	33	67	30	56	27
25....	72	46	52	37	84	45	67	35	71	46	66	54	71	42	68	43	75	54	62	44	57	30	75	44	59	40	70	46
26....	73	46	65	30	87	45	75	37	68	47	70	63	78	60	79	64	76	54	69	59	54	29	75	58	42	35	68	55
27....	78	58	70	38	86	66	73	41	57	45	70	64	79	62	78	64	72	58	66	58	41	26	75	61	35	35	64	56
28....	72	41	46	40	85	66	46	32	48	36	67	62	62	52	79	52	79	60	60	41	29	22	63	42	51	30	56	38
Mns..	69.6	47.7	57.3	38.1	79.7	54.8	65.1	39.4	63.3	44.4	66.9	57.6	70.4	54.5	71.4	54.2	70.7	50.6	65.9	49.2	54.5	30.0	68.9	51.3	53.8	38.3	65.7	48.6

[1] Haskell temporarily substituted for Seymour.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 9, COLORADO VALLEY.

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

The stormy conditions that set in near the middle of January continued with but little interruption during February. While the average precipitation for the month was not much above the normal, yet, combined with that for January, it may be considered as making up generally for the light precipitation that characterized the fall months and the first half of the winter. The total for the months November, December, January, and February, for the basin of the Green, is 4.68 inches, or 1.31 inches less than for the corresponding months a year ago; for the Grand, the amount, 6.33 inches, is practically the same as that of a year ago; for the San Juan the total is 8.54 inches; Little Colorado, 4.70 inches; and the Gila, 5.45 inches. These values are 0.32, 0.69, and 2.38 inches, respectively, more than for the corresponding months in 1909–10.

In western New Mexico water for irrigation is likely to be adequate, except in the southern part. In Arizona it is plentiful, and the supply will last till summer, the season of frequent rains. The range outlook is very favorable in New Mexico and Arizona.

Temperatures in Arizona and Wyoming averaged lower than the normal, but in the remainder of the district a slight excess was general.

The sunshine was deficient, and the relative humidity was somewhat greater than usual.

TEMPERATURE.

The mean of the 134 stations reporting was 36.9°, or 0.5° below the normal. By subdivisions the means and departures were: Western Wyoming, 12.8°, −2.5°; western Colorado, 24.2°, +1.4°; eastern Utah, 30.2°, +1.2°; western New Mexico, 38.1°, +1.4°; Arizona, 46.3°, −2.0°; and southeastern Nevada, 39.8°. The highest monthly mean was 57.6°, at Maricopa, Ariz., and the lowest, 5.4°, at Corona, Colo. Except in the extreme southwestern part of Arizona, the first 11 days were warmer than the normal throughout the district, and in the central part high mean temperatures continued nearly a week longer. From the 15th to the 22d, inclusive, there was a marked daily deficiency of temperature in Arizona and southeastern Nevada, and from the 20th almost to the end of the month in the central and northern parts of the district. By subdivisions the extremes were: Western Wyoming, 48° and −30°; western Colorado, 59° and −25°; eastern Utah, 69° and −27°; western New Mexico, 78° and −12°; Arizona, 82° and −20°; and southeastern Nevada, 67° and 10°.

PRECIPITATION.

The average for the 177 stations reporting was 1.62 inches, or 0.39 inch above the normal. An excess was noted on all drainage areas except the Grand. By watersheds the means and departures were: Green, 1.41, +0.22; Grand, 1.63, −0.08; San Juan, 2.97, +1.91; Little Colorado, 1.73, +0.43; Gila, 1.71, +0.37; Mimbres, 1.69, +0.86; and Colorado, proper, 1.30, +0.12 inch. The greatest monthly amount was 7.02 inches, at Durango, Colo.; this came largely in the form of snow and is the greatest of record at that station for any month. The least monthly amount was 0.05 inch, at Aztec, Ariz. The average number of days with 0.01 inch or more of precipitation was 4 in western Wyoming, 10 in western Colorado, 7 in eastern Utah, 7 in western New Mexico, 5 in Arizona, and 3 in southeastern Nevada. For the district as a whole the average was 7 days. At the close of the month 97 stations in Colorado having an average elevation of 8,585 feet showed a mean depth of 29 inches of snow. This depth is 5.6 inches less than that reported for the corresponding date last year. Heavy rain fell in the central and northern parts of Arizona on the 4th and 5th, causing a moderate freshet in the rivers from the 4th to the 6th.

MISCELLANEOUS.

The sunshine was from 5 to 11 per cent below the normal. Grand Junction reported 57, Durango 61, Flagstaff 75, Phoenix 69, and Yuma 76 per cent of the possible.

The mean relative humidity was above the normal, the excess being marked in southwestern Colorado and central Arizona. The following values were reported: Grand Junction 65, Durango 75, Flagstaff 78, Phoenix 65, and Yuma 48 per cent.

EXTRACTS FROM SECTION SNOWFALL BULLETINS.

Western Wyoming.—The prospect for water over the upper part of the Green River Valley was improved during the month, and a shortage in that section is not expected.

Western Colorado.—West of the Continental Divide, over the upper drainage basin of the Yampa, the Grand, and the Gunnison, less than the usual amount of snow fell, while at lower levels an excess was general. In the upper reaches of the San Juan the snowfall was remarkably heavy. In general the snow is solidly packed.

Eastern Utah.—At the close of February the amount of snow in the mountains and hills of the Green River and the Colorado River watersheds was about the same as at the corresponding time last year. Compared with the average, the prospective water supply is somewhat deficient.

Western New Mexico.—Very heavy precipitation occurred over the upper drainage area of the San Juan, following heavy precipitation in January. A large amount of packed snow is reported in the higher mountains, and the soil of the valleys is filled with moisture. The outlook for water is greatly improved, especially for the early part of the season. There was also an excess of precipitation, mostly rain, over the headwaters of the San Francisco, Gila, and Mimbres Rivers. On the higher ranges considerable snow fell. Seasonal rains, however, will be needed, owing to the lateness of the snow.

Arizona.—The snowfall for February was one and one-half times greater than the total for the preceding two months. The average depth at 8,000 feet elevation is about 14 inches. Over the upper watershed of the Gila the depth averaged 27 inches, and for that of the Little Colorado the average was 49 inches.

BREAK IN THE LOWER COLORADO.

By L. N. JESUNOFSKY, Section Director.

Another serious break in the partly constructed dam across the channel of the Colorado River has occurred. The Government officials report that about 175 feet of the trestle and rock dumped on each side of the levees have been carried away. While they express confidence in being able to repair the break, it is recognized that the season of high water is approaching, with the probability of a much greater increase in volume of water over last year, and that the water may break into the Salton Basin as it did five years ago, threatening the Imperial and Coachella Valleys. The work of repairing the damage has been started, in the hope of closing the break before the river rises. The dam is located in Lower California, 20 miles below the boundary, and is built by the United States Government with the approval of the Mexican authorities. The purpose is to force the river back into its channel.

TABLE 1.—*Climatological data for February, 1911. District No. 9, Colorado Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Daniel	Uinta	6,740	12					−30	17	56										J. M. Van Dervort.
Eden	Sweetwater	6,577	2	13.6		39	11	−27	17	49	0.14		0.08		3	16	4	8	w.	Eden Val. L. & Ir. Co.
Green River	do	6,083	6	18.0	− 2.5	48	13	−20	17	44	0.56	− 0.09	0.31	15.2	6	13	10	5	w.	Geo. W. Maxom.
Pinedale	Fremont	7,167	5	6.8				−29	17	53	0.20		0.10	4.5	3	21	5	2	nw.	Forest Supervisor.
Colorado.																				
Ashcroft	Pitkin	9,483	9	18.8		42	28	−12	23	43	1.20		0.43	20.5	11					Dan McArthur.
Bed Rock	Montrose																			W. B. Weybright.
Breckenridge	Summit	9,536	22	14.0	− 2.3	40	1†	−21	23	50	0.64	− 2.34	0.18	9.1	4	8	13	7	nw.	Mrs. J. G. Thompson.
Buford	Rio Blanca										2.04		0.38	23.0	13	20	3	5	w.	Mrs. H. Genier.
Cascade	San Juan	8,900	4																	San Juan W. & P. Co.
Cedaredge	Delta	6,175	13	31.4	+ 1.5	51	11	6	23	28	1.57	+ 0.43	0.40		10	9	5	14		Harry A. Cobbett.
Chromo	Archuleta	7,500	5	25.2		54	17	−20	22†	60	2.54		0.60	44.0	8	14	3	11	sw.	Lawrence Nolan.
Cochetopa	Saguache	9,088	2								0.79		0.29	11.5	9	9	11	8	e.	Bessie McDonough.
Collbran	Mesa	6,000	18	30.0	+ 1.4	53	11	5	23	30	1.48	+ 0.21	0.27	24.5	14	9	7	12	sw.	A. A. Wood.
Columbine	Routt	8,766	1								4.61		0.86	36.5	12	8	13	7	sw.	Mrs. M. A. Caron.
Columbine Ranch	Delta	6,825	1								3.63		0.68	27.7	14	10	2	16	s.	Geo. W. Wade.
Corona§§	Grand	11,660	4	5.4		26	11	−14	21†	26	3.26		0.75	37.0	8				w.	U. S. Weather Bureau.
Craig	Routt			20.4		50	10	−21	23	56	1.50		0.32	21.5	12	11	13	4	w.	C. S. Merrill.
Crawford (near)	Montrose	6,600	1	28.0		48	11	7	23	29	1.01		0.43	13.5	9	16	3	9		C. W. Roe.
Crested Butte	Gunnison	8,867	1	17.8		40	17	−22	23	47	1.16		0.38	11.0	5	13	12	3		Charles L. Ross.
De Beque	Mesa	4,935	1	35.4		58	1	14	23	33	0.79		0.38	T.	5	13	5	10		C. M. Paine.
Delta	Delta	4,965	21																	E. M. Getts.
Dillon	Summit	8,800	1	22.3		46	2	−12	2	58	0.10		0.10	1.5	1	13	3	12	n.	Harry T. Hamilton.
Dolores	Montezuma	6,445	2	32.7		53	1	7	23	29	1.93		0.30	16.8	11	8	3	17	se.	Wm. C. Syrett.
Durango	La Plata	6,534	16	30.4	+ 0.5	51	11	− 2	23	40	7.02	+ 5.63	2.02	57.6	16	7	8	13	nw.	U. S. Weather Bureau.
Eagle	Eagle	6,598	7																	J. M. Witteman.
Eureka	San Juan	10,000	4																	San Juan W. & P. Co.
Fraser§§	Grand	8,560	2	9.6		40	4	−25	10†	60	0.60		0.35	6.5	6	5	10	13	n.	L. D. C. Gaskill.
Fruita	Mesa	4,510	12																	J. B. Willsea.
Gladstone	San Juan	10,400	4																	San Juan W. & P. Co.
Glenwood Springs (near)	Garfield	5,823	13	31.6	+ 5.0	52	2	6	23	35	0.43	− 0.40	0.20	4.4	6	13	3	12	w.	E. A. O'Neil.
Grand Junction	Mesa	4,608	20	36.2	+ 4.7	59	11	21	27	33	1.29	+ 0.66	0.22	11.1	14	9	9	10	nw.	U. S. Weather Bureau.
Grandlake	Grand	8,153	3								0.48		0.48	6.0	1	15	10	3	w.	Mrs. Belle Kauffman.
Grand Valley	Garfield	5,089	19	34.1	+ 4.3	57	11	14	23†	36	1.53	+ 0.54	0.38	14.0	13	7	6	15		David Evans.
Gunnison	Gunnison	7,670	18	10.9	− 2.7	39	28	−22	10	39	0.51	− 0.25	0.20	9.5	5	20	2	6		Clarence Adams.
Horsefly	Montrose	8,700	1								1.55		0.42	31.0	8	11	2	15	sw.	Lawrence J. Finch.
Ironton	Ouray	10,000	1								3.31		0.66	38.7	11	7	12	9	sw.	P. H. Foley.
Ladore	Routt										2.30		1.80	18.0	6	15	0	13		E. Bassett.
Lake City	Hinsdale	8,686	6	20.4		45	17†	−15	23	45	1.45		0.36	19.4	11	13	5	10	s.	J. F. Maurer.
Lay	Routt	6,190	17	17.6	− 2.1	47	10†	−23	18	48	2.16	+ 0.97	0.86	37.5	12	10	5	13	sw.	A. G. Wallihan.
Leal	Grand	8,750	1																	L. J. Wade.
Mancos	Montezuma	6,960	12	31.8	+ 1.6	54	20	3	23	40	2.07	+ 0.54	0.30	22.2	15	12	8	8	sw.	B. M. Krumpanitzky.
Marble	Gunnison	7,951	2	24.8		47	11	−13	23	49	2.50		0.56	34.5	12	14	3	11	ne.	G. B. Wilson.
Marshall Pass	Saguache	10,846	8								1.25		0.62	31.0	8	13	9	6	w.	Wm. D. Lillard.
Meeker (near)	Rio Blanca	6,182	19	23.1	− 0.8	47a	10	− 9a	24	43a	1.36	+ 0.23	0.30	11.0	14	6a	13a	8a	sw.	T. Baker.
Montrose	Montrose	5,811	22	33.9		55	11†	9	23	32	0.93	+ 0.24	0.33	8.1	7	12	12	4		U. S. Reclamation Service.
Nast	Pitkin	7,953	1	20.3		44	11	0	11†	44	0.58		0.23	7.8	3	10	11	7	w.	Arthur Hanthorn.
Pagoda	Routt	6,500	20	21.6	− 0.9	52	1	− 8	21	46	1.32	− 0.63	0.35	42.2	11	15	3	10		Shaw Brothers.
Pagosa Springs	Archuleta	7,108	4	25.2		48	10†	−25	23	64	4.57		0.69	55.0	16	10	5	13	sw.	E. T. Walker.
Paonia	Delta	5,694	16	33.9	+ 2.1	57	11	10	23	34	1.53	+ 0.23	0.29	9.6	16	8	12	8	sw.	J. M. Underwood.
Parshall	Grand		2								0.30		0.20	7.0	2					F. A. Field.
Pitkin	Gunnison	9,500	2								0.77		0.34	4.8	5	8	6	14		Mrs. Maggie Camman.
Pyramid	Rio Blanca			20.2		44b	1	−10b	21	32b	2.41		0.30	24.0	12	9	11	8	w.	C. E. Egry.
Rangely	do	5,050	12	26.7	+ 6.8	50	1	− 1	17†	36	1.00	+ 0.20	0.39	9.4	8	9	7	12	w.	Mrs. C. P. Hill.
Redcliffe	Eagle	8,695	18								1.37	− 0.62	0.50	18.9	7	13	7	8		Dorothea Greiner.
Rico	Dolores	8,824	9								4.71		1.30	53.0	15	11	1	16	s.	Clinton B. Smith.
Rifle	Garfield	5,437																		Horace Mann.
River Portal	Montrose	6,570	5	27.4		47a	28	3a	23	33a	1.15		0.57	1.2	6	10	5	13		U. S. Reclamation Service.
Sapinero (near)	Gunnison	8,125	8	19.6		43	28	− 8	10†	35	2.53		0.46	27.0	14	12	7	9	w.	W. F. Irving.
Shoshone	Garfield	6,110	1								1.33		0.38	15.3	12	6	1	21		Central Colo. Power Co.
Silverton (near)	San Juan	9,400	4																	San Juan W. & P. Co.
Spruce Lodge	Grand	9,600	3								1.24		0.32	19.5	8					H. J. Wills.
Steamboat Springs	Routt	6,683	8	17.6		47	1	−23	9	51	1.94		0.56	23.8	7	23	1	4		M. Elliot Houston.
Tacoma	La Plata	7,300	4																	San Juan W. & P. Co.
Terminal Dam	do	8,300	4																	Do.
Terrill's Ranch	Mesa	7,000									1.79		0.23		12	10	5	13	s.	A. F. Terrill.
Uncompahgre Plateau	Montrose	8,400	1																	Martin Esser.
Yampa (near)	Routt	8,000	2								1.10		0.29	17.6	11	7	10	11	n.	Percy A. Hughes.
Utah.																				
Aneth	San Juan	4,800	8	38.5		61	11	17	23	31	0.83		0.15	3.0	9	12	7	9	w.	H. R. Antes.
Castle Dale	Emery	5,500	12	29.3	+ 1.2	51	6	9	22†	30	1.05	+ 0.33	0.30		7	18	10	0		James Jeffs.
Elkhorn	Uinta	6,057	1								1.50		0.70	15.0	7	15	4	9		Forest supervisor.
Emery	Emery	6,200	10	29.0	− 1.4	55	3	3	22	31	0.50	− 0.38	0.30	5.0	2	0	0	28	e.	H. C. Wickman.
Escalante	Garfield	5,700	10																	Geo. H. Barney.
Fort Duchesne	Uinta	5,000	21	24.2	+ 4.9	55	11	− 7	22	39	0.98	+ 0.55	0.55	9.2	7	22	0	6	w.	Post surgeon.
Fruitland	Wasatch		1	19.0		43	10†	−14	27	42	1.05		0.36	17.6	11	6	17	5		J. Peter Naab.
Grayson	San Juan	5,750	8																	Joseph A. Lyman.
Green River	Emery	4,080	10	37.4	+ 2.7	61	11	17	25†	39	0.77	+ 0.13	0.32	3.2	6	14	13	1		E. E. Adams.
Hanksville	Wayne		1	34.4		60	13	14	10†	43	0.44		0.11		8	10	15	3	sw.	F. J. Weber.
Hite	Garfield	3,000	10	42.2		63	1	23	23	35	0.78		0.38	4.0	7	13	9	6		John P. Hite.
La Sal	San Juan	7,000	10	29.2d	− 0.7	53	1	8	22†	28d						10e	12e	3e		Gertrude W. Carpenter.
Loa	Wayne	7,000	19																	Frank E. Brown.
Manila	Uinta		1								0.92		0.70	12.2	5	10	11	7		Daniel M. Nelson.
Moab	Grand	4,000	22	39.0	+ 2.8	63	11	19	23†	33	1.11	+ 0.41	0.45	7.5	11	7	7	14		Henry Crouse.
Monticello	San Juan		2	28.4		47	12	11	21	27	3.73		1.40	27.8	7	14	3	11	sw.	Geo. F. Barton.
Orderville	Kane		1								1.78		0.52		8					F. A. Porter.
Pine Valley	Washington		0								2.60		0.75		5	12	4	12		Mason Gardner.
Price	Carbon	5,557	0	34.2		53	11	12	27	28	0.39		0.20	3.9	5	20	2	6	se.	R. H. Thompson.
Ranch	Kane	6,700	9	21.6		45	9	− 6	15†	40	3.47		1.22		9	12	3	13	s.	J. W. Seaman.
St. George	Washington	2,880	21	40.3	− 1.5	65	11	19	21†	38	1.24	+ 0.27	0.29	3.0	7	8	9	11		A. B. Ballantyne.
Scofield	Carbon		0	15.2		39	10	−27	15	54	1.00		1.00	11.0	1	16	8	4	s.	Geo. A. Murphy.
Springdale	Washington		3	37.0		69	1	15	15	46				4.5		10	9	9	s.	Alberta Flanigan.
Sunnyside	Carbon	5,280	6								1.42				6					Henry Cullum.
Tesadale	Wayne	7,000	3	25.4		49	11	3	27	31	1.75		0.50	17.5	8	13	0	15		Josiah Shurtz.
Theodore	Wasatch	5,507	5	22.8		51	11	−12	22	38	1.25		0.30	11.3	10	9	13	6		M. M. Smith.
Tropic	Garfield	7,000	13	29.8d	− 0.2	50	8†	6	19	38	1.30	+ 0.35	0.70	13.0	4	12d	5d	7d	nw.	E. P. Bolton.
Trout Creek Ranger	Uinta	9,200	1								2.90		1.30	44.0	6	16	8	4		Forest Supervisor.
Vernal	do	5,050	15	26.5	+ 3.1	52	11	0	18	32	0.91	+ 0.26	0.28	10.0	6	17	7	4		S. P. Trim.

TABLE 1.—*Climatological data for February, 1911. District No. 9*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days	Number of partly cloudy days.	Number of cloudy days.		
New Mexico.																				
Alma	Socorro	5,500	15	42.8	+ 1.4	68	3	18	26	44	1.96	+ 1.10	0.84	T.	6	5	18	5	s.	M. A. Balke.
Aragon	do	5,856	4	31.9	.....	60	1†	1	17	47	1.81	.....	0.42	17.5	7	8	12	8	sw.	John R. Milligan.
Aztec	San Juan	5,590	....								2.29	.....	0.54	19.0	14	7	6	15	.....	Dr. T. J. West.
Blackrock	McKinley	6,500	3																	R. J. Bauman.
Bloomfield	San Juan	5,500	16	34.8	+ 1.5	63	2	2	22	37	2.33	+ 1.57	0.56	15.1	15	8	10	10	se.	Fred Le Clerc.
Cambray	Luna	4,215	12								1.87	+ 1.26	1.18	1.0	6	9	9	10	w.	Agent, Southern Pacific Ry.
Cliff	Grant	4,470	12																	W. C. Belden.
Columbus	Luna	4,054	2		.....	71	4	26	22	.....	1.03	.....	0.43	T.	6	9	6	13	nw.	Agent, E. P. & S. W. R. R.
Deming	do	4,333	34	43.2	.....	78	2	14	22	50	1.40	+ 0.87	0.87	.....	5	0	12	16	w.	Agent, Southern Pacific Ry.
Dulce	Rio Arriba	6,756	4	29.6	+ 4.8	51	1†	−12	22	52	2.87	+ 1.05	0.63	25.5	15	13	6	9	sw.	G. H. Blakeslee.
Fort Bayard	Grant	6,152	36	40.9	+ 0.3	65	3	19	22	32	1.29	+ 0.32	0.75	5.5	4	14	11	3	nw.	U. S. General Hospital.
Fort Wingate	McKinley	6,997	47	33.8	− 0.7	60	10	− 6	23	46	1.83	+ 0.38	0.56	23.2	10	8	9	11	sw.	Medical Corps, U. S. A.
Fruitland	San Juan	4,800	18	36.8	+ 1.8	62	11	10	23	37	1.44	+ 0.74	0.45	8.0	9	15	2	11	se.	Cyril J. Collyer.
Gage	Luna	4,486	4	45.0	.....	78	2	18	12	40	1.60	+ 0.97	0.70	.....	6	11	6	11	w.	Agent, Southern Pacific Ry.
Gila Planting Station	Grant	6,475	....	38.7	.....	62	3	19	22	30	1.73	.....	0.84	8.5	8	9	4	15	sw.	U. S. Forest Service.
Hachita	do	4,504	2								0.76	.....	0.40	T.	6	8	9	11	sw.	Agent, E. P. & S. W. R. R.
Haynes	Rio Arriba	6,600	1																	Dr. John R. Haynes.
Hermanes	Luna	4,451	2								1.45	.....	0.85	.....	4	19	4	5	w.	Agent, E. P. & S. W. R. R.
Lordsburg	Grant	4,245	11	46.9	+ 0.5	70	4†	25	22	40	0.95	+ 0.46	0.53	.....	4	7	16	5	e.	Agent, Southern Pacific Ry.
Luna	Socorro	7,300	6	32.8	.....	57	3	3	17	39	2.87	.....	0.65	21.2	7	4	20	4	w.	C. B. Martin.
Mimbres	Grant	5,007	6								2.27	.....	0.64	0	6	8	12	8	w.	Charles Dennis.
Pratt	do	4,415	2								1.62	.....	0.90	0	5	12	10	6	e.	Agent, E. P. & S. W. R. R.
Putnam	San Juan	6,200	1																	D. Lee Thompson.
Redrock	Grant	4,150	6								1.33	.....	0.61	0	4	11	8	9	.....	Robt. H. Woods.
Rodeo	do	4,118	2								1.58	.....	0.84	0	5	20	4	4	.....	Agent, E. P. & S. W. R. R.
Arizona.																				
Allaires Ranch	Cochise	4,184	15								1.56	+ 0.72	0.68	T.	8	10	3	15	w.	Thos. Allaire.
Aztec	Yuma	492	13	55.3	− 1.8	80	2	31	17	38	0.05	− 0.68	0.05	0.0	1	14	3	11	w.	Agent, Southern Pacific Co.
Benson	Cochise	3,523	29	48.7	− 1.7	74	11	20	16	45	1.69	+ 0.73	0.70	0.0	6	10	11	7	e.	Do.
Bisbee	do	5,500	22	45.6	− 1.3	64	11	25	22	26	3.70	+ 2.30	1.41	1.8	6	9	5	14	w.	Rev. J. G. Pritchard.
Bonita	Graham	4,916	....																	W. E. Ross.
Bowie	Cochise	3,756	35	37.2	−10.3	58	13	18	17	35	2.05	+ 1.10	1.30	0.0	4	14	6	8	sw.	Agent, Southern Pacific Co.
Buckeye	Maricopa	980	18	53.1	− 8.7	76	1	29	19	44	0.86	+ 0.08	0.75	0.0	3	18	7	3	e.	H. E. Kell.
Camp Verde	Yavapai	3,160	....																	T. B. Gabbard.
Canille	Santa Cruz	5,225	2								1.90	.....	0.99	T.	7	7	15	6	sw.	R. A. Rodgers.
Casa Grande	Pinal	1,396	31	56.0	+ 0.3	82	1	30	17	40	0.00	− 0.02	0.45	0.0	2	16	7	5	sw.	Agent, Southern Pacific Co.
Casa Grande Ruins	do	1,422	3	52.7	.....	78	11	28	17	41	1.04	.....	0.63	0.0	8	13	5	10	w.	F. Pinkley.
Cavecreek	Maricopa	1,520	4	49.2	.....	71	9†	29	13†	39	1.91	.....	1.75	0.0	4	13	8	7	.....	E. A. Howard.
Chin Lee	Apache	6,090	3	36.6	.....	58	12	15	24	39	1.44	.....	0.73	5.6	15	4	5	19	sw.	Fr. L. Ostermann, O. F. M.
Chlarsons Mill	Graham	8,000	4	35.3	.....	62	1	14	17	32	4.92	.....	1.20	43.0	7	13	5	10	.....	H. R. Chlarson.
Clifton	Greenlee	3,584	22	51.1	.....	72	11	32	23	29	1.52	+ 0.26	0.66	0.0	6	13	12	3	.....	P. Reisinger.
Cline	Gila	2,300	....																	W. M. Clanton.
Cochise	Cochise	4,219	12	47.2	+ 0.4	75	1	22	14†	46	0.40	− 0.80	0.40	0.0	1	12	11	5	.....	Agent, Southern Pacific Co.
Columbia	Yavapai	1,900	11	50.4	− 3.1	74	9	32	12†	32	2.02	− 0.13	1.25	2.0	5	13	5	10	se.	M. J. Nolan.
Congress	do	3,688	15	47.0	− 5.3	69	26	30	15	30	1.16	− 0.33	0.76	2.6	5	9	16	3	sw.	Assayer Congress Mine.
Courtland	Cochise	4,543	1								4.47	.....	1.15	1.0	6	1	21	6	sw.	Agent, E. P. & S. W. Co.
Dos Cabezos	do	5,250	3	43.2	.....	66	3†	22	13	36	3.76	.....	1.23	4.0	6	15	5	8	w.	N. Errickson.
Douglas	do	3,930	....																	Dr. F. T. Wright.
Dudleyville	Pinal	2,204	20	51.4	+ 0.2	78	11	25	17	48	1.43	− 0.04	0.42	0.0	10	7	11	10	sw.	G. F. Cook.
Fairbank	Cochise	3,862	....																	Agent, E. P. & S. W. Co.
Flagstaff	Coconino	6,907	19	27.8	− 3.0	48	10	− 7	17	43	2.75	− 0.53	1.18	18.3	13	11	5	12	sw.	U. S. Weather Bureau.
Flagstaff (1)	do	7,452	....																	C. C. Moers.
Flagstaff (2)	do	7,500	2	24.0	.....	46	7	−20	17	53	2.47	.....	1.30	13.4	8	14	3	11	sw.	U. S. Forest Service.
Florence	Pinal	1,504	12	56.2	+ 2.2	81	1	32	16†	40	1.15	+ 0.45	1.00	0.0	4	15	9	4	sw.	Agent, Ariz. Eastern R.R.Co.
Fort Apache	Navajo	5,200	40	38.7	− 1.2	60	10†	6	17	36	2.34	+ 1.23	0.70	5.0	6	12	12	4	sw.	Post Surgeon, U. S. A.
Fort Huachuca	Cochise	5,100	26	47.2	0.0	68	3	18	17	32	0.73	− 0.39	0.20	1.0	6	14	9	5	se.	Do.
Fort Mohave	Mohave	604	....																	A. F. Duclos.
Gilabend	Maricopa	737	20	55.5	− 1.2	74	12	30	17	40	0.38	− 0.36	0.38	0.0	1	20	6	2	sw.	Agent, Southern Pacific Co.
Globe	Gila	3,525	10	45.8	.....	68	11	25	17	31	1.63	+ 0.35	1.00	0.0	10	3	21	4	sw.	B. G. Fox, M. D.
Grand Canyon	Coconino	6,866	5	29.0	.....	49	3	− 5	17	39	2.07	.....	0.70	16.0	10	4	10	14	sw.	Agent, G. C. R. R. Co.
Grand Canyon (1)	do	3,676	3	43.4	.....	63	1	28	21†	26	2.17	.....	1.08	1.0	8	9	4	15	sw.	C. C. Spaulding.
Granite Reef Dam	Maricopa	1,372	18	53.2	− 2.8	75	11	32	17	37	0.98	− 0.19	0.69	0.0	8	10	11	7	sw.	U. S. Reclamation Service.
Greer	Apache	9,200	....																	Mrs. M. Butler.
Heber	Navajo	6,633	....																	E. S. Perkins.
Hereford	Cochise	4,180	2								1.50	.....	0.52	0.0	4	15	0	13	n.	Agent, E. P. & S. W. Co.
Holbrook	Navajo	5,069	22	40.2	+ 1.1	65	1	19	25	40	1.10	+ 0.44	0.55	7.0	4	21	0	7	.....	T. Larson.
Indian Oasis	Pima	3,000	....								0.42	.....	0.32	T.	2	16	4	8	sw.	J. Menager.
Intake	Gila	2,230	....																	U. S. Reclamation Service.
Jerome	Yavapai	4,743	14	41.6	− 4.8	60	10	24	17	26	2.47	+ 0.43	1.18	4.2	7	8	14	6	s.	Dr. L. A. Hawkins.
Keams Canyon	Navajo	6,600	8	35.0	.....	55	1†	10	21	29	1.92	.....	1.15	14.5	9	7	13	8	ne.	B. Persell.
Kingman	Mohave	3,326	....																	G. R. Gooding.
Lewis Springs	Cochise	4,029	2								1.43	.....	0.95	0.0	5	1	22	5	w.	Agent, E. P. & SW. Co.
Maricopa	Pinal	1,186	33	57.6	− 0.7	78	7†	26	17	40	0.43	− 0.26	0.43	0.0	1	17	9	2	w.	Agent, S. Pacific Co.
McNeal	Cochise	4,490	....								2.03	.....	1.01	0.0	5	13	5	10	sw.	C. E. Bolton.
Mesa	Maricopa	1,244	15	52.3	− 2.1	72	10	31	16	34	0.71	− 0.21	0.35	0.0	4	11	12	5	se.	C. L. Diehl.
Mohawk Summit	Yuma	538	11	57.3	− 3.3	80	22	40	15†	30	0.34	− 0.21	0.34	0.0	1	6	15	7	e.	Agent, S. Pacific Co.
Naco	Cochise	4,579	2								2.19	.....	0.90	0.0	3	7	16	5	sw.	Agent, E. P. & SW. Co.
Natural Bridge	Gila	4,990	22								3.58	+ 1.15	1.78	2.0	8	10	6	12	sw.	D. G. Goodfellow.
Oracle	Pinal	4,500	19	46.8	− 1.0	69	1	31	16†	27	3.13	+ 1.33	0.92	2.4	8	10	7	11	sw.	W. H. Winters.
Osborn	Cochise	4,676	2								1.54	.....	0.55	0.0	4	9	14	5	sw.	Agent, E. P. & SW. Co.
Paradise	do	3,940	6	41.9	.....	72	2	18	23	44	1.51	.....	1.40	0.0	3	3	9	16	sw.	J. C. Hancock.
Parker	Yuma	345	17	49.4	− 6.4	76	8†	21	18	50	0.87	+ 0.34	0.78	0.0	2	20	5	3	.....	M. A. Israel, M. D.
Payson	Gila	5,550	2	41.0	.....	66	9	20	17	43	3.02	.....	1.25	5.0	9	9	4	15	s.	M. McDonald.
Phoenix	Maricopa	1,108	16	53.0	− 1.4	75	11	31	17	34	0.66	− 0.03	0.60	0.0	5	15	9	4	e.	U. S. Weather Bureau.
Phoenix (1)	do	1,092	20	51.9	− 1.3	75	11	26	17	40	0.78	+ 0.05	0.65	0.0	3	13	8	7	w.	G. Acuff.
Phoenix (2)	do	1,189	2	55.8	.....	80	5	31	17	36	0.90	.....	0.90	0.0	1	17	5	6	e.	Horne & Armstrong.
Pinal Ranch	Pinal	4,520	15								4.10	+ 1.19	1.93	3.5	10	16	1	11	sw.	Irion & Craig.
Pinto	Apache	5,660	6								1.56	.....	0.55	9.0	7	7	8	13	sw.	Mrs. C. F. Henning.
Prescott	Yavapai	5,320	45	36.4	− 1.6	74	7	6	17	52	1.81	+ 0.14	1.11	3.7	7	15	4	9	.....	J. W. Flinn, M. D.
Quartzsite	Yuma	800	3	51.4	.....	74	1†	28	19	41	0.91	.....	0.71	0.0	2	19	7	2	n.	W. E. Scott.
Redrock	Pinal	1,864	3	54.0	.....	76	24	32	17	32	0.75	.....	0.22	0.0	8	4	23	1	w.	W. J. Crowell.
Roosevelt	Gila	2,175	6	51.8	.....	70	12	30	17	27	2.83	.....	1.35	0.0	6	15	6	7	ne.	U. S. Reclamation Service.
Sacaton	Pinal	1,280	3	52.8	.....	80	11	24	17	41	0.69	.....	0.52	0.0	4	16	8	4	.....	E. W. Hudson.
St. Johns	Apache	5,650	6	37.6	.....	69	1	7	17	48	2.15	.....	1.10	11.0	5	7	10	11	sw.	A. Shreve.
St. Michaels	do	6,950	23	35.0	+ 3.9	56	4†	4	23	33	2.36	+ 1.26	1.10	8.5	9	5	11	12	sw.	Rev. A. Weber, O. F. M.
Salome	Yuma	1,875	4	46.4	.....	70	10	24	16	35	0.79	.....	0.65	0.0	3	11	9	8	s.	Mrs. M. B. Swartz.
San Carlos	Gila	2,456	29	48.4	− 1.3	73	11	25	17	43	1.38	− 0.10	0.50	0.0	8	8	11	9	sw.	F. S. Thomas.

TABLE 1.—*Climatological data for February, 1911. District No. 9*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Arizona—Continued.																				
San Simon	Cochise	3,609	28	47.4	− 1.9	72	14	22	18	44	2.28	+ 1.78	1.12	0.0	3	14	11	3	sw.	Agent, S. Pacific Co.
Seligman	Yavapai	5,219																		Lib., A. T. & S. F. R. R. Co.
Sentinel	Maricopa	685	12	54.7	− 2.0	78	4	31	17	38	0.32	− 0.21	0.31	0.0	2	12	15	1		Agent, S. Pacific Co.
Showlow	Navajo	6,300																		Miss Z. Hall.
Silverbell	Pima	2,650																		Imperial Copper Co.
Snowflake	Navajo	5,644	1	38.4		65	1	5	17	40	1.12		0.55	7.0	5	3	6	19	sw.	W. J. Flake.
Supai	Coconino	3,200																		A. H. Symons.
Tempe	Maricopa	1,165	7	51.5		76	11	28	16†	39	0.70		0.51	0.0	4	11	11	6	sw.	F. H. Simmons.
Thatcher	Graham	2,800	8	48.4		79	3	24	25	47	1.97		1.12	0.0	5	8	15	5	nw.	Prof. J. H. Larson.
Tombstone	Cochise	4,550	13	47.5	− 1.6	74	2	26	16	35	2.61	+ 1.56	0.96	0.8	7	8	13	7		F. N. Walcott.
Truxton	Mohave	4,197	2	40.2		64	1	20	21	34	1.18		0.98	0.5	5	12	10	6	s.	G. A. Dennis.
Tuba	Coconino	4,500	13	37.0	− 1.5	59	12	18	21	34	1.14	+ 0.60	0.40	6.2	6	9	11	8	n.	G. H. Kwans.
Tucson	Pima	2,390																		University of Arizona.
Tucson (1)	do	2,380	3	53.3		78	11	28	17	40	1.21		0.35	0.0	6	11	8	9	w.	J. M. Robe.
Tucson (2)	do																			U. S. C. & G. Survey.
Vail	do	3,421	13	53.2	− 2.6	79	11	19	17	36	0.72	− 0.21	0.50	0.0	5	12	12	4	sw.	Agent, S. Pacific Co.
Walnut Grove	Yavapai	3,649	20								1.63	+ 0.13	0.90	2.0	5	14	10	4		J. O. Carter.
Wickenburg	Maricopa	2,072	11	48.4	− 0.4	70	10†	21	17	42	0.84	− 0.18	0.80	0.0	2	14	11	3	sw.	Agent, S. F. P. & P. Ry.
Wilcox	Cochise	4,164	30	46.4	− 2.8	75	4	20	17†	50	1.58	+ 0.66	0.78	T.	5	11	11	6	s.	Agent, S. Pacific Co.
Williams	Coconino	6,750	9	32.2		59	1	9	20	32	2.10		1.00	9.5	6	14	12	2	sw.	E. J. Nordyke.
Winslow	Navajo	4,853	7	41.0		70	1	17	21	44	1.35		0.70	6.5	4	13	8	7		J. F. Bauer.
Yarnell	Yavapai	4,700																		E. L. Bartholomew.
Yuma	Yuma	141	31	54.7	− 4.5	74	10	35	19	36	0.64	+ 0.04	0.64	0.0	1	20	4	4	nw.	U. S. Weather Bureau.
Yuma (1)	do	150	4	51.4		74	10	27	17	44	0.63		0.38	0.0	3	19	4	5	n.	A. L. Crane.
Nevada.																				
Caliente	Lincoln	4,407	1	34.8		62	1	10	17†	40	1.70		0.80	17.0	6	14	8	6	ne.	Salt Lake Route.
Las Vegas	Clark	2,033	3																	Do.
Logan	do	1,700	4	44.9		67	9†	23	19†	43	0.63		0.63	T.	1	10	13	5	n.	R. M. Filcher.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of rhe dry bulb; means are computed from the observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; themaximam temperature then read is charged to preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 9, Colorado Valley.*

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Wyoming.																														
Daniel	Green																													
Eden	do			.08	T.									.02		.04														
Green River	do	T.		.05	T.	.02		T.							.09															0.14
Pinedale	do					.10	.05							.05						.05	.04					T.	.31			0.56
Colorado.																														0.20
Ashcroft	Grand	.13		T.	.05	.20							T.	T.	.02	.05	.43	.13	.02											
Bed Rock	Dolores																									.07	.07	.03		1.20
Breckenridge	Grand	T.		.18	T.	.16								T.			.15	.15		T.						T.	T.	T.		0.64
Buford	White	.26			.10	.26		.11					.13		*	.38	.23				.10		T.			*	.20	.13	.14	2.04
Cascade	San Juan																													
Cedaredge	Gunnison				.25	.07							.10				.22			.40		.11	.13				.18	.06	.05	1.57
Chromo	San Juan				.15								.25		.18		.26		.12		.46					.01				
Cochetopa	Gunnison	.07			T.	.29							.08	.07			.08	.05	.02								.52		.60	2.54
Collbran	Grand	.20			.14	.14								.01	.04	.27	.25			.05	.04	.02	.05	T.		.11	.02			0.79
Columbine	Yampa		.29	.43	.86	.43	.15						.77	.11	.18					.12	.10	.22			T.	.04	.10	T.	.13	1.48
Columbine Ranch	Gunnison	.26		.38	.42								.68	.34		.12	.26	.11		.19						.32	.73	.02	.13	4.61
Craig	Yampa			.03		.14	T.	.18					.05	.06	.08	.32	.24			.07	.03						.09		.21	1.50
Corona‖	Grand	.32		.26		.42		.36					T.	.24	T.		.39	T.		.52							.75			3.26
Crawford (near)	Gunnison	.03			.43	.10							.10			.05	.22		.02				.05			.01				1.01
Crested Butte	do			T.	.30	.20							.10	T.	T.	T.				T.		T.			T.		.38	.18	T.	1.16
De Beque	Grand				.38								T.		T.					.11	T.						.10	.12	.08	0.79
Delta	Gunnison																													
Dillon	Grand				T.	.10		T.												T.	T.		T.	T.		T.	T.	T.		0.10
Dolores	Dolores				.30								.09	.05	.05	.10	.24			.25	.20		T.			.20	.30	T.	.15	1.93
Durango	San Juan				.93	.19							.31	.02	.15	.43	.22		.87	1.00	.45	.23	.02			.36	.37	.37	.50	7.02
Eagle	Grand																													
Eureka	San Juan																													
Fraser‖	Grand	.05	.05			.35							.05		T.	.05	.05													0.60
Fruita	do																													
Gladstone	San Juan																													
Glenwood Springs (near)	Grand				T.	.20						T.	T.	T.	T.	.04	.05					T.				T.	.04	.05	.05	0.43
Grand Junction	do	.01			.22								T.		.05	.08	.02		.01	.20	.06	.06	.04			.18	.09	.07	.20	1.29
Grandlake	do	T.		T.	.48	T.							T.			T.			T.		T.	T.					T.			0.48
Gra d Valley	do	.25	T.	.01	.10	.38							.03	.02	.08	.13	T.			T.	.01		.05			T.	.16	.05	.26	1.53
Gunnison	Gunnison				.20	.09							.05			T.	T.	.10			T.	.07					T.		T.	0.51
Horsefly	do				.25	.12							.12				.42			.12				.14		.26			.12	1.55
Ironton	do	.36			.32	.28							.27		.10	.35	.66	T.	T.	.13		T.				.22	.40	.22	T.	3.31
Ladore	Yampa	*	.20												*	1.80												.30	2.30
Lake City	Gunnison	.06			.17	.15							.26			T.	.36	.13	.03	.03						.15	.08		.03	1.45
Lay	Yampa	.41	T.	.07	.08	.04	T.	.17					T.	.05	.86	T.	.10			.10	.05	T.	T.			T.	.10	T.	.13	2.16
Leal	Grand																													
Mancos	San Juan				.30	.20							.15	.05	.09	.05	.26			.20	.08	.03	.02			.22	.18	.04	.20	2.07
Marble	Grand	.10			.22	.56							.22	.08	.19	.29	.37									.04	.23	.09	.11	2.50
Marshall Pass	Gunnison				.08	.54							.04	.07			.07		.19			.06					.20			1.25
Meeker (near)	White	.30			*	.15		.15					.08	.07	*	.17	.08			T.		T.	.11			*	*	*	.25	1.36
Montrose	Gunnison				.33	.17							.01			T.	.32						.08			T.	.01	.01		0.93
Nast	Grand	.12			T.	.23							T.	T.		T.	.23					T.				T.	T.			0.58
Pagoda	Yampa	.18	.02			.04		.12					.03	.18	.08	.16	.04			T.	T.					T.		.12	.35	1.32
Pagosa Springs	San Juan	.13			.69	.10							.41	.13	.12	.06	.38	.16	.10	.33	.40	.27				.15	.52	T.	.62	4.57
Paonia	Gunnison	T.			.19	.29							.15	.04	.06		.22	.05	.04	.15	.08	.02	.10			.05	.03	.05	.01	1.53
Parshall	Grand					.10									.20			T.												0.30
Pitkin	Gunnison				.22								.03	T.		T.	T.	.34			T.	.12				.06	T.	T.		0.77
Pyramid	Yampa	.30	T.	T.	T.	.30		.20					.26		.14	.15	.20			.14	.14				T.		.10	.24	.24	2.41
Rangely	White	.39			T.		T.								.25	.02	.03				.06	T.					.02	.10	.13	1.00
Redcliffe	Grand	.20					.40		T.			.05				.02	.50			.05	T.					.15	T.	T.	T.	1.37
Rico	Dolores				1.30	.75							.45	.18	.10	.11	.55		.07	.03	.23	.10				.27	.21	.16	.20	4.71
Rifle	Grand																													
River Portal	Gunnison			.57									.19	T.		.07	.08									.18		.06		1.15
Sapinero	do	.04			.46	.37							.32	.05		.14	.34	.02	.10	.14		.02				.42	.04	.07	T.	2.53
Shoshone	Grand	.14		T.	.12	.38	T.	.02					.13	.02		.05	.14		.02	T.	T.	T.	T.	T.		T.	.26	.04	.01	1.33
Silverton (near)	San Juan																													
Spruce Lodge	Grand	.16		.09		.32		.08					.15			.12	.17									.15				1.24
Steamboat Springs	Yampa	.39				.56	.27						.15			.30										.17			.10	1.94
Tacoma	San Juan																													
Terminal Dam	do																													
Terrill's Ranch	Grand																													
Uncompahgre Plateau	Gunnison				23									.05	.20	.09	.21			.21	.16		.05			.20	.14	.10	.15	1.79
Yampa (near)	Yampa	.09		.03		.06		.03					.06		.18	.10	.15					T.				T.	.29	.07	.04	1.10
Utah.																														
Aneth	San Juan	.04			.40	.04											.15			.02	.02	.01				.07	.08			0.83
Castle Dale	Green				.10										.10					.05	.10	T.		.10		.30	T.	.30	1.05
Elkhorn	do				.20									.10	.70					.20	.10				.10	.10			1.50
Emery	Colorado				.20																	T.		.30		T.			0.50
Escalante	do																													
Fort Duchesne	Green	.08			.02										.55					.05	.01					.02	.25			0.98
Fruitland	do	T.		.03	.06									.02	.36						.18	.08		.03		.10	.07	.02	.10	1.05
Grayson	San Juan																			T.	.07						.32	.12		0.77
Green River	Green	.06			.17										.03											.01	.09	.11		0.44
Hanksville	Colorado			.06	.08										.01		.03		.05											
Hite	do			T.	.38	.02							T.		.06		.02				.12	T.	.03			T.	.15			0.78
Lasal	Grand																													
Loa	Colorado																													
Manila	Green	.03													.70					.08	.01					.10				0.92
Moab	Grand	.07			.45								.03		.07		.03			.15	.02	.07	.05				.14		.03	1.11
Monticello	San Juan	.50			.58	.35									.40					1.40								.10	.40	3.73
Orderville	Colorado	.11			.52	.51							.07	.06	.32	T.									T.	T.	.17	.07	.01	1.78
Pine Valley	do			T.	.75						.35	T.	T.		.60		T.			T.	T.			T.	T.	T.	T.	.20	.10	2.00
Price	Green				.05										.20					.02				.10		.02				0.39
Ranch	Colorado	.04		.32	.72	.05							T.	T.	1.22	.05	.06									T.	.92	.09		3.47
St. George	do			.29	.29								.07	.05	.04											.29		.21	1.24
Scofield	Green													T.	1.00												T.		1.00
Springdale	Colorado																													
Sunnyside	Green												T.	.02	.20					*	.20			T.	T.	.40	.60			1.42
Teasdale	Colorado			.10									.05		.30		.30				.10			.30		.10			.50	1.75
Theodore	Green	.12			.03	T.								T.	.30					.05	.20	.05		T.		.15	.05	.05	.25	1.25
Tropic	Colorado				.70	.10									.30						T.	.20								1.30
Troutcreek Ranger	Green				.30									.40	1.30															
Vernal	do	.19			.13									T.	.28					.12						.30	.40	.20		2.90
																										T.	.12		.07	0.91

TABLE 2.—*Daily precipitation for February, 1911. District No. 9*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
New Mexico.																														
Alma	Gila				.31	.03							.15				.23	T.	.40	T.								.84	1.96
Aragon	do					.10							.24				.42	*	.40		.30							.35	1.81
Aztec	San Juan	T.			.43	.01							.30	T.	T.	.02	.10	.04	.28	.54	.08	.12	T.		.13		.12	.02	.10	2.29
Black Rock	Little Colorado																													
Bloomfield	San Juan				.40	.02							.21			.03	.17	T.	.07	.09	.30	.56	.03		.09	.11	.10	.10	.05	2.33
Cambra	Mimbres												.12					.92	.20	.09								*	.48	1.87
Cliff	Gila																													
Columbus	do	.04																.43	.03	.02	T.	T.						.28	.23	1.03
Deming	Mimbres																	*	.87	.08								*	.45	1.40
Dulce	San Juan	.08			.52	.11							.20	T.	.02	.01	.26	.32	.10	.25	.18	.05	T.			.36	.01	T.	.40	2.87
Fort Bayard	Mimbres	T.			T.								T.	.12			T.		.32	T.	.10	T.				T.		T.	.75	1.29
Fort Wingate	Little Colorado				.10								.12			T.	.32	.10	.08		.21	.56	.14			.02	.12			1.83
Fruitland	San Juan				.45								.18				.24		*	.10	.04	T.				.12		*	.25	1.44
Gage	Mimbres												T.					*	.50		.10						*	.70	.30	1.60
Gila Planting Station	do	T.			T.	T.							T.	.13			.04	T.	.51	.10	.01	.05	T.			.05		T.	.84	1.73
Hachita	Gila	T.												.07			T.	*	.25	.04						T		*	.40	0.76
Haynes	San Juan																													
Hermanes	Gila																	*	.85									.45	.15	1.45
Lordsburg	do												.25				.05		.12										.53	0.95
Luna	do				.65								.12				.50	.50	.30	T.	T.	.30				T.			.50	2.87
Mimbres	Mimbres				.10													.20	.64	.02	.15	T.						1.08	2.27
Pratt	Gila																*	.40									*	.90	.32	1.02
Putnam	San Juan																													
Redrock	Gila												.20				.04		.48										.61	1.33
Rodeo	do													.05			.18	.50	.01										.84	1.58
Arizona.																														
Allaires Ranch	Sonora	T.				T.							.08			.24	.01	.25	.03						.11			.68	.16	1.56
Aztec	Gila			.05																										0.05
Benson	San Pedro	.05											.13				.24		.47						.10				.70	1.69
Bisbee	do				T.								.20				.85		1.20	.02						.02		T.	1.41	3.70
Bonita	Desert																											1.30	2.65	
Bowie	Gila													.35			.20		.80											
Buckeye	do		T.	.75	.01								T.				.10													0.86
Camp Verde	Verde																													
Canille	San Pedro	.04	T.		T.							T.	.08			.58	T.	.12	.02							.07			.99	1.90
Casa Grande	Gila				.45								.15																	0.60
Casa Grande Ruins	do	.04		.01	.63								.10			T.	.15		.07									.03	.01	1.04
Cavecreek	Verde				1.75								.08		.04		.04													1.91
Chin Lee	San Juan	.01			.73	.02							.08	T.		.04	.09	.08	.01	.10	.04	.01	.12			.02	.01	T.	.02	1.44
Chlarsons Mill	Gila				.62								.30			.80	1.00		1.20							.40			.60	4.92
Clifton	do				.04	.09							.02				.09		.62										.66	1.52
Cline	Salt																												.40	0.40
Cochise	Desert																													2.02
Columbia	Agua Frio			1.25									.01		.01		.65										.10			1.16
Congress	Hassayampa				.76	.11							.01				.26											.02		4.47
Courtland	White											.70				.50	1.10										1.15	.90	.12	3.76
Dos Cabezos	Desert												.40	.60			.42		1.23							.20			.85	
Douglas	Sonora																													1.43
Dudleyville	Gila			T.	.23					.02	.32	T.	.04	T.	T.		.42	.02	.19	.02								.01	.16	
Fairbank	San Pedro																													
Flagstaff	Little Colorado	.04		.25	.93	.01						T.	.35	.01	.08	.19	.09	T.	T.	.21	.04				T.	.30	.25	T.		2.75
Flagstaff (1)	do																													
Flagstaff (2)	do	.23			1.30								.30		.06	.19	.03			T.	.11					.25	T.			2.47
Florence	Gila			.10	1.00								.02			.03														1.15
Fort Apache	Salt			.22	.70							T.	.30			.62		T.							.10		.40	T.		2.34
Fort Huachuca	San Pedro	.10											.15			.20	.10											.03	.15	0.73
Fort Mohave	Colorado																													
Gilabend	Gila	T.			.38																									0.38
Globe	Salt	.09		.02	1.00	.04							.02			.09	.20									.03		.04	.10	1.63
Grand Canyon	Colorado	.02			.70							T.	.30	T.	.10	.15	.10	T.	T.	.15	.05					.10	.40	T.		2.07
Grand Canyon (1)	do	.31			1.08	.13							T.		.23			.07		T.	T.	.11				.07	.17			2.17
Granite Reef Dam	Salt	.02	.04		.69	.07							.03		.01		.11										.01			0.98
Greer	Little Colorado																													
Heber	do																													
Hereford	Gila												.09				.38		.52										.51	1.50
Holbrook	Little Colorado				.55								.10				.40			.05	T.	T.	T.							1.10
Indian Oasis	Desert											.10	T.															.32		0.42
Intake	Salt																													
Jerome	Verde	.23			1.18								.20		.08	.10	.42										T.		.26	2.47
Keams Canyon	Little Colorado				1.15								.06			.01	.22	.10		.10	.12	.13					.03			1.92
Kingman	Colorado																													
Lewis Springs	San Pedro													.07				.03	.95							.03			.35	1.43
Maricopa	Gila				.43										T.															0.43
McNeal	Desert													.05			.11		1.01							.04			.82	2.03
Mesa	Salt	.14		.35	.20								T.			.02	T.										T.			0.71
Mohawk Summit	Gila				.34																									0.34
Naco	San Pedro																.74			.55									.90	2.19
Natural Bridge	Verde	.28		.05	1.78	.05							.45		.40		.32											.25		3.58
Oracle	San Pedro			T.	.92								.28			.20	.65	T.	.50						.24		.12	.22	3.13
Osborn	do	T.											.01				.55		.48										.50	1.54
Paradise	Desert												T.	.03					1.40										.08	1.51
Parker	Colorado				.78	.09																								0.87
Payson	Verde	.20		.05	1.25	T.							.31		.34	.05	.45									T.	T.	.15	.22	3.02
Phoenix	Salt	.04		.01	.59								.01			.01	T.											T.		0.66
Phoenix (1)	do	.07		T.	.65	.06							T.	T.	T.		T.													0.78
Phoenix (2)	do				.90																									0.90
Pinal Ranch	Gila	.15		.65	1.93								.04	.29			.35	.08	.06							.09			.46	4.10
Pinto	Little Colorado				.50	.15						T.	.25				.55		.05											1.56
Prescott	Hassayampa	.23		.03	1.11								.07		.20		.10			T.	T.	.04	.02				.07	T.	T.	1.81	
Quartzsite	Colorado	.20			.71																									0.91
Redrock	Santa Cruz			.02	.05								.12			.14		.04	.14						.02			.22		0.75
Roosevelt	Salt	.72			1.35	.17							.05				.35											.19		2.83
Sacaton	Gila				.52								.08				.06	.03												0.69
St. Johns	Little Colorado				1.10								.07			T.	.70		.07			.21								2.15
St. Michaels	do				1.10								.12			.03	.50	.08	.15	.15	.15	.08								2.36
Salome	Colorado				.65	.12																					.02	T.		0.79
San Carlos	Gila	.13			.50	.07							.12			.10	.25		.03									T.	.18	1.38
San Simon	do													.22			T.	T.	.94										1.12	2.28
Seligman	Verde																													
Sentinel	Gila				.31	.01																								0.32
Show Low	Little Colorado																													

TABLE 2.—*Daily precipitation for February, 1911. District No. 9*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Arizona—Continued.																														
Silverbell	Santa Cruz																													
Snowflake	Little Colorado	T.			.55								.08				.41			T.	.05			T.		T.			.03	1.12
Supai	Colorado																													
Tempe	Salt	.06	.09	T.	.51								T.				.04										T.			0.70
Thatcher	Gila					.01							.10		T.		.18		1.12										.56	1.97
Tombstone	San Pedro												.33			.58		.96	.05						.08			.52	.09	2.61
Truxton	Colorado		.12	.98									T.		.02		.03										.03	T.		1.18
Tuba	Little Colorado			.40	.22												.15	.15		T.	T.	.12					.10			1.14
Tucson	Santa Cruz																													
Tucson (1)	do												.35	.01		.10	.30		.20									.25	1.21
Tucson (2)	do																													
Vail	do	.50			.14											.02	.03	.03											0.72
Walnut Grove	Hassayampa				.90								.05	.25			.40										.03			1.63
Wickenburg	do					.80											.04													0.84
Wilcox	Desert	.20			T.									.05			.05		.50									.78		1.58
Williams	Colorado	.40			1.00								.15							.25	T.					.14	.16			2.10
Winslow	Little Colorado	T.			.70							T.					.40	T.				.10	.15							1.35
Yarnell	Hassayampa																													
Yuma	Colorado			.64																										0.64
Yuma (1)	do	.04		.21	.38																				T.					0.63
Nevada.																														
Caliente	Colorado												.20		.20	.10									.20			.20	.80	1.70
Las Vegas	do																													
Logan	do			T.	.63												T.													0.63

TABLE 3.—*Maximum and minimum temperatures at selected stations, February, 1911. District No. 9, Colorado Valley.*

Date.	Wyoming.				Colorado.										Utah.										New Mexico.			
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Fort Duchesne.		Hite.		Moab.		St. George.		Fort Bayard.		Fort Wingate.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	.....	.....	37	29	49	28	54	33	35	23	46	30	47	17	50	20	51	31	63	39	60	38	59	33	62	43	54	34
2	.....	.....	43	21	46	24	55	32	27	− 4	45	17	37	− 4	53	24	51	21	59	34	57	31	59	30	63	37	50	33
3	.....	.....	36	9	47	29	50	32	35	11	45	22	35	− 1	55	26	48	23	55	40	54	37	51	34	65	37	53	30
4	.....	.....	36	17	39	31	42	33	27	19	44	27	40	3	50	21	41	29	52	38	53	37	54	39	62	36	48	35
5	.....	.....	37	14	43	24	50	34	35	16	40	30	37	27	53	24	50	25	57	42	56	37	58	38	53	33	54	27
6	.....	.....	32	20	46	18	54	32	30	− 8	44	25	44	4	50	23	49	24	58	37	58	39	60	31	60	30	50	24
7	.....	.....	26	8	47	19	47	29	25	−14	40	4	31	3	40	21	49	20	56	32	52	28	56	30	56	32	55	26
8	.....	.....	32	3	48	15	49	26	20	−13	39	6	30	−12	42	23	40	12	57	30	52	23	56	27	59	33	56	20
9	.....	.....	25	− 1	47	15	49	26	16	−19	44	7	24	−23	40	20	45	11	56	30	52	21	60	25	60	35	55	28
10	.....	.....	38	0	50	19	49	28	17	−22	47	10	30	−21	45	18	48	9	56	28	55	21	62	25	59	35	60	22
11	.....	.....	47	5	51	18	59	26	19	−19	.....	.....	42	2	46	17	55	17	64	29	63	30	65	28	57	29	56	29
12	24	3	38	19	43	29	52	33	32	− 3	43	3	43	20	50	20	53	22	62	47	54	33	52	38	56	29	49	26
13	20	4	48	22	40	22	49	28	35	− 3	41	14	43	11	50	22	43	13	56	37	54	30	48	28	45	24	38	19
14	22	2	37	14	36	29	48	34	35	11	43	22	38	25	46	18	35	24	52	37	40	42	49	30	49	26	43	29
15	23	0	24	− 5	34	23	39	29	30	8	25	11	30	9	40	10	29	4	46	30	41	25	46	22	55	28	39	24
16	20	−20	21	0	38	28	40	26	31	21	27	15	29	15	35	16	29	14	42	31	45	29	37	26	54	34	38	24
17	20	−30	19	−20	49	22	44	28	30	18	32	− 2	33	9	40	12	31	− 4	51	33	50	29	50	23	55	27	45	10
18	32	10	28	−16	36	26	42	27	29	3	28	− 5	20	−11	45	12	29	− 6	54	32	50	24	48	20	49	30	35	27
19	30	10	20	6	31	21	40	25	28	10	28	13	32	12	45	13	30	3	50	30	42	25	53	23	43	27	37	20
20	20	− 5	21	5	28	20	36	22	27	6	22	6	24	4	36	11	28	10	49	29	43	26	49	21	33	25	35	18
21	21	−14	21	5	26	16	33	23	27	3	20	− 3	17	−10	35	6	31	11	45	30	40	27	50	19	41	23	35	9
22	18	−15	28	−12	26	5	34	22	19	− 9	27	− 4	22	− 9	34	3	27	− 7	46	30	41	25	53	19	36	19	34	5
23	31	−25	32	− 6	38	− 2	41	21	17	−19	34	9	29	−22	28	11	27	− 4	42	23	44	19	59	21	35	21	40	− 6
24	29	−19	32	2	40	6	42	22	20	−13	34	− 9	32	−16	35	8	31	− 4	49	26	46	19	56	29	41	27	45	7
25	30	−15	28	12	34	23	42	24	26	− 9	35	3	31	11	40	18	30	− 3	49	30	49	22	57	26	44	25	41	20
26	15	− 9	16	8	33	18	38	23	25	9	36	10	31	18	31	16	33	4	47	26	49	27	43	22	55	27	41	22
27	14	−28	21	− 3	43	18	34	21	29	− 3	28	1	24	2	29	10	27	− 6	45	28	38	25	48	29	60	28	47	18
28	22	−25	28	− 3	42	27	45	30	39	5	38	12	38	12	28	11	32	− 1	50	27	47	30	53	30	54	29	48	29
Mn.	.....	.....	30.4	5.5	40.4	20.4	44.9	27.5	27.3	−5.5	36.1[a]	10.1[a]	32.6	2.7	41.8	16.2	37.9	10.4	52.2	32.3	49.5	28.5	53.2	27.4	52.2	29.6	45.8	21.8

Date.	Arizona.																				Logan, Nev.	
	Bisbee.		Flagstaff.		Fort Apache.		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		San Carlos.		Tucson.		Yuma.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	63	48	46	27	55	35	46	32	70	39	71	51	67	25	54	34	67	50	74	50	73	40	63	36
2	63	46	44	29	57	30	44	30	72	40	68	45	52	21	49	28	70	40	73	48	70	42	61	33
3	62	41	46	32	57	35	49	28	60	40	64	54	46	21	54	34	61	42	68	52	61	53	54	33
4	62	51	40	30	50	42	46	30	70	50	62	51	42	34	56	35	62	50	65	50	66	51	60	33
5	58	35	42	24	51	32	47	28	69	37	66	45	72	28	48	30	65	38	67	46	68	42	62	37
6	59	38	47	20	59	26	44	29	69	36	62	42	73	22	50	32	62	32	69	43	70	45	63	36
7	57	48	48	20	58	28	46	28	73	32	66	40	74	22	50	25	64	33	65	39	70	43	64	35
8	59	40	45	18	59	23	46	20	76	34	66	40	53	22	51	21	69	30	67	38	71	48	63	29
9	58	39	45	16	58	21	47	24	76	34	69	40	57	19	50	24	61	32	68	38	71	48	67	29
10	62	43	48	17	60	25	40	22	74	34	71	37	56	19	50	17	69	35	76	36	74	40	67	30
11	64	38	46	31	60	24	44	28	72	40	75	44	58	28	56	35	73	30	78	42	68	42	67	31
12	56	34	37	20	42	21	46	29	66	36	59	41	48	29	44	31	66	43	70	40	64	46	61	37
13	51	26	31	18	47	24	44	20	60	35	60	35	42	22	38	22	55	30	60	34	63	38	56	29
14	58	38	32	24	48	27	40	21	59	24	59	45	38	32	44	35	61	29	62	42	61	46	67	29
15	50	40	30	18	46	36	38	18	61	25	55	44	39	27	38	28	55	38	60	43	59	41	52	26
16	46	30	30	4	37	30	26	10	58	22	49	37	37	16	38	23	54	36	51	36	58	37	49	26
17	46	26	33	− 7	41	6	34	− 5	63	24	62	31	39	6	41	21	58	25	55	28	62	37	58	32
18	44	33	43	9	47	12	32	14	69	21	63	41	47	19	38	27	60	42	66	36	72	36	62	26
19	50	30	33	20	45	23	28	− 4	67	22	64	37	45	27	38	28	61	26	64	35	70	35	56	23
20	54	32	34	− 2	47	33	28	− 2	67	24	65	37	45	18	32	13	61	29	67	34	66	40	56	29
21	48	26	38	− 5	48	30	28	3	68	24	65	38	47	14	33	13	56	33	67	39	66	42	58	23
22	45	25	34	3	48	20	30	6	72	22	64	40	47	14	36	14	56	31	65	40	68	47	59	24
23	48	28	38	9	46	20	34	12	70	29	65	44	54	29	32	4	52	35	64	41	72	43	66	23
24	59	35	37	17	52	27	34	18	67	26	68	47	42	33	44	14	68	28	66	46	65	39	64	24
25	51	28	28	22	44	29	34	22	67	26	62	37	44	21	42	31	61	37	68	36	68	41	62	29
26	55	37	29	19	53	29	36	24	67	28	60	43	37	24	44	31	64	28	62	42	62	40	53	29
27	58	43	33	26	53	26	36	28	67	30	60	43	40	27	46	28	62	33	62	42	58	45	58	35
28	52	41	42	23	54	30	38	26	69	30	68	47	50	30	50	32	61	41	69	44	70	45	58	30
Mns.	54.9	36.4	38.5	17.2	50.8	26.6	38.8	19.2	67.8	30.9	63.9	42.0	49.7	23.2	44.5	25.4	61.9	34.9	65.9	40.7	66.6	42.6	59.9	29.9

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL SUMMARY.

February was a stormy month; it was unusually windy, and more than the usual amount of snow fell, but the precipitation as a whole was about normal. The temperature averaged much below normal. Stock suffered considerably, and little outside work was done.

TEMPERATURE.

The temperature for the district as a whole averaged 25.6°, which is almost 5° below normal. The lowest mean temperatures occurred in the mountainous parts of Utah and the eastern portion of the Oregon area. Almost every station in the district reported negative temperature departures, and the few positive departures reported were very small. The greatest deficiencies occurred in the Oregon area, in central Nevada, and in the extreme northern and southern portions of the Utah area.

The mean temperatures at the various stations ranged from 7.2° at Woodruff, Utah, to 49° at Jean, Nev. The temperature departures varied from 14.8° below normal at Truckee, Cal., whose mean was 13.2° to 0.8° above normal at Carlin, Nev., whose mean temperature was 27.3°.

During the first decade the weather was unusually mild over the entire district, except in the Oregon area, where decidedly low temperatures occurred, the weather there being controlled by a high pressure area of considerable energy, and temperatures fell as low as −4° on the 6th at Burns, Oreg.

Decidedly cold weather set in on the 11th in Nevada, reaching the Utah area on the 14th, although in the Idaho, Wyoming, and northeastern portion of the Utah areas quite low temperatures were recorded in the early part of the month. This cold spell was due to continued northerly winds, a high pressure area having prevailed in the Northwest for several days.

Warm weather set in about the 17th in the Nevada area, and about the 20th in Utah. The weather continued warm as a rule until the close of the month.

The highest temperatures occurred as a rule during the first decade and ranged from 39° to 46° in the Wyoming and Idaho areas, from 42° to 67° in the Utah area, and from 39° to 65° in the remainder of the district. The highest temperature reported was 67° at Iosepa, Utah, on the 11th.

The lowest temperatures occurred from the 15th to the 18th, but some stations in the Utah, Oregon, and California areas reported their lowest as occurring on the 26th and 27th. The lowest temperatures ranged from −33° to 36°. The lowest occurred at Border and Cokeville, Wyo., on the 17th.

PRECIPITATION.

The average precipitation for the district is 1.40 inches, which is about normal. The precipitation chart shows the usual geographical distribution, large amounts being recorded on the western slope of the Wasatch Mountains in Utah, locally in Nevada, and on the eastern slope of the Sierras in California.

The chart of precipitation departures does not indicate any regular distribution of the amounts above or below normal, stations quite near one another reporting departures differing greatly.

The greatest monthly amount is 6.94 inches at Deer Park, Cal., and the least 0.01 at Willow Point, Nev.

The month opened with general precipitation, continuing until the 7th, due to three distinct storms passing over the district during that period. These storms were followed by fair weather, which prevailed until the 10th, when another storm appeared off the California coast, causing precipitation in the Oregon and California areas on that date, in Nevada and Utah on the 11th, and the remaining portion of the district on the 12th. Precipitation from this storm ceased about the 14th; but snow and rain continued to fall at scattered stations in the Utah and Nevada areas until the 23d, when precipitation again became general in Nevada, and in Utah on the 25th, due to storms central in the Southwest. The last few days of the month were fair.

On the 25th an unusually heavy snow storm occurred in Northern Utah. At Salt Lake City, Utah, 7 inches were recorded, while at Ogden, 37 miles north of Salt Lake City, 9 inches were reported.

The prospective water supply for the ensuing crop season was much greater at the end of February than at any previous date this winter. The February fall of snow was unusually heavy, and it lay in the mountains and hills, drifted and well packed, a condition favorable for late melting.

TABLE 1.—*Climatological data for February, 1911. District No. 10, Great Basin.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Border	Uinta	6,085	9	8.2	− 5.4	39	5	−33	17	44	1.03	− 0.35	0.27	.....	6	16	4	8	w.	S. W. Condron.
Cokeville	....do	6,204	1	10.8	.....	44	2†	−33	17	44	1.01	.....	0.40	21.0	10	16	6	6	nw.	E. J. Tuckett.
Evanston	....do	6,860	14	14.8	− 5.8	40	10†	−23	17	44	1.51	+ 0.27	0.37	13.0	5	14	5	9	sw.	Frank Tucker.
Idaho.																				
Geneva	Bear Lake	.....	3	.....	.....	.....	.....	.....	.....	.....	0.54	.....	0.42	5.5	2	23	3	2	.....	F. W. Boehme.
Grace	Bannock	5,400	5	22.0	.....	46	11	−10	17	39	0.48	.....	0.22	7.6	5	17	5	6	s.	C. B. Dickson.
Paris	Bear Lake	5,946	17	12.0[b]	− 7.1	41	5	−30[d]	16	48[d]	1.78	+ 0.55	0.80	22.0	6	17	3	8	n.	John Norton.
Stone	Oneida	4,520	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. W. Roe.
Weston	....do	4,460	13	20.2	− 6.0	44	1†	−11	17	36	0.96	− 0.25	0.29	12.0	7	17	2	9	n.	W. T. Chatterton.
Utah.																				
Alpine	Utah	4,900	14	.....	.....	.....	.....	.....	.....	.....	0.48	− 1.57	0.25	10.0	4	12	12	4	.....	George Stevens.
Beaver	Beaver	6,000	8	28.6	.....	50	10	5	15	30	0.79	.....	0.40	6.9	5	10	12	6	sw.	James Connell.
Black Rock	Millard	4,872	11	27.6	.....	54	10†	− 3	22	39	1.71	+ 0.55	0.70	12.0	5	9	6	13	.....	W. D. Livingston.
Castle Rock	Summit	6,244	8	.....	.....	.....	.....	.....	.....	.....	1.25	.....	0.40	20.0	9	13	7	8	e.–ne.	David Moore.
Cedar City	Iron	5,750	6	27.8[c]	.....	51	9†	2	17	31[c]	1.02	.....	0.37	13.2	6	.....	.....	.....	.....	Parley Dalley.
Corinne	Boxelder	4,240	41	26.0	− 4.2	52	11	2	17	43	1.00	− 0.20	0.60	10.0	3	14	8	6	.....	A. C. Murphy.
Deseret	Millard	4,541	17	27.4	− 3.7	54	11	− 8	17	37	0.49	− 0.38	0.23	11.0	6	13	7	8	s.–n.	S. W. Western.
Enterprise	Washington	4,270	3	.....	.....	.....	.....	.....	.....	.....	2.60	.....	1.15	18.0	5	4	14	10	s.	John Day.
Fairfield	Utah	4,866	0	.....	.....	.....	.....	.....	.....	.....	1.38	.....	0.45	14.3	10	18	4	6	sw.	W. Harden Ashby.
Farmington	Davis	4,267	11	30.2	− 3.0	54	11	7	27	30	2.42	− 0.21	1.00	21.0	8	17	7	4	sw.	Charles Boylin.
Fillmore	Millard	5,100	21	31.3	− 2.5	59	10	3	18	38	1.14	− 0.34	0.72	.....	4	.....	.....	.....	.....	J. J. Starley.
Frisco	Beaver	7,318	17	25.7	− 8.4	46	10†	2	20	27	0.54	− 0.17	0.16	.....	6	.....	.....	.....	.....	E. R. Smyth.
Garrison	Millard	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. M. Smith.
Government Creek	Tooele	5,277	11	25.8	− 5.7	56	8	− 4	17	41	1.53	+ 0.13	0.80	20.0	8	13	5	10	n.	Walter James.
Grantsville	....do	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. J. C. Woodmansee.
Grouse Creek	Boxelder	.....	1	.....	.....	.....	.....	.....	.....	.....	0.69	.....	0.28	10.4	5	12	14	2	sw.	Phillip Paskett.
Heber	Wasatch	5,606	18	23.5	− 0.4	46	10	−16	17	43	1.34	− 0.76	0.60	17.5	10	12	10	6	s.	John Crook.
Henefer	Summit	5,301	12	21.4	− 5.1	51	10	−18	17	49	1.99	− 0.23	0.54	20.0	9	11	8	9	nw.	Wm. Brewer.
Ibapah (near)	Tooele	7,500	6	17.2	.....	42	9	−10	16	43	3.64	.....	1.00	38.4	10	13	8	7	n.	J. S. Lawton.
Ibex	Millard	.....	1	30.8	.....	58	10	5	17	37	1.00	.....	0.50	11.0	4	8	6	14	s.	John J. Watson.
International	Tooele	5,370	2	.....	.....	.....	.....	.....	.....	.....	1.21	.....	0.35	18.0	9	11	11	6	se.	I. S. & R. Co.
Iosepa	....do	.....	1	32.2	.....	67	11	0	27	44	1.01	.....	0.55	.....	7	5	18	5	n.	Geo. K. Hubbell.
Kanosh	Millard	5,250	3	.....	.....	.....	.....	.....	.....	.....	1.52	.....	0.78	.....	8	.....	.....	.....	.....	Geo. Crane.
Kelton	Boxelder	4,230	33	23.2	− 5.8	52	3	0	27	33	1.00	+ 0.38	0.40	10.0	5	1	18	9	ne.	F. W. Klock.
Levan	Juab	5,010	21	26.2	− 2.4	53	11	− 2	15†	29	1.38	− 0.23	0.75	12.0	5	15	6	7	n.	Wm. Brown.
Logan	Cache	4,507	20	21.3	− 4.9	48	11	− 7	17	40	1.46	+ 0.16	0.45	12.5	7	.....	.....	.....	.....	Utah Exp. Station.
Lucin	Boxelder	4,504	7	24.8	.....	50	4†	− 4	9	53	1.10	.....	0.40	11.0	4	15	11	2	.....	C. J. Burke.
Manti	Sanpete	5,575	17	25.7	− 2.8	48	5	0	16	29	0.74	− 0.74	0.27	8.5	6	10	3	15	.....	J. M. Anderson.
Marion	Summit	6,750	7	.....	.....	.....	.....	.....	.....	.....	1.37	.....	0.35	20.0	10	8	6	14	n.	Jas. Woolstenhulme.
Marysvale	Piute	6,280	12	27.6	− 4.5	53	10	2	15	40	0.91	− 0.11	0.25	11.2	10	11	8	9	n.	John W. Henry.
Meadowville	Rich	6,200	12	17.4	− 5.0	42	11	−10	27	41	1.83	+ 0.81	0.60	16.0	9	16	1	11	e.	J. S. Moffat.
Milford	Beaver	4,962	7	27.8	.....	53	1†	− 7	18	41	1.40	.....	0.80	.....	5	8	9	11	n.	J. C. Manuel.
Millville	Cache	4,848	16	.....	.....	.....	.....	.....	.....	.....	1.57	+ 0.35	0.46	.....	8	7	15	6	s.	Fred Yeates.
Minersville	Beaver	5,070	14	.....	.....	.....	.....	.....	.....	.....	1.47	+ 0.50	0.37	12.0	7	.....	.....	.....	.....	Geo. Roberts, sr.
Modena	Iron	5,479	11	25.8	− 5.8	48	10	− 6	15	32	1.51	+ 0.31	0.66	13.2	10	7	13	8	w.	U. S. Weather Bureau.
Morgan	Morgan	4,280	8	21.2	.....	48	11	−11	15	48	2.65	.....	0.70	25.0	7	6	11	11	e.	W. Visick.
Moroni	Sanpete	5,519	3	28.0	.....	51	11	1	17	34	0.80	.....	0.26	8.1	8	10	9	9	sw.	B. F. Eliason.
Mount Nebo	Utah	4,650	10	30.7	− 1.7	55	12	− 2	17	34	1.44	+ 0.32	1.08	11.0	7	18	6	4	n.	D. C. Walkey.
Nephi (near)	Juab	6,059	8	.....	.....	.....	.....	.....	.....	.....	0.51	.....	0.28	.....	4	.....	.....	.....	.....	S. Boswell.
Oak City	Millard	4,900	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Peter Nielson.
Ogden	Weber	4,310	10	27.4[a]	− 4.9	52	11	1	27	33[a]	1.52	− 0.70	0.95	14.0	6	11	9	8	n.	A. Van De Graaff.
Park City	Summit	7,800	14	19.8	− 7.5	42	10	− 9	17	42	1.51	− 1.33	0.80	.....	7	8	16	4	.....	Irvin Evans.
Parowan	Iron	5,970	20	29.2	− 2.4	60	24	2	17†	46	2.01	+ 0.68	0.90	9.0	4	13	0	15	.....	S. M. Matheson.
Payson	Utah	4,637	1	.....	.....	.....	.....	.....	.....	.....	2.33	.....	1.00	22.5	10	10	7	11	sw.	D. L. Coombs.
Pinto	Washington	5,907	14	24.2[c]	− 6.8	48	10	− 8	20	39	1.38	− 0.19	0.42	10.0	4	13	3	12	s.	J. H. Harrison.
Promontory	Boxelder	4,913	40	.....	.....	.....	.....	.....	.....	.....	2.40	+ 1.58	0.80	24.0	7	.....	.....	.....	.....	F. C. Houghton.
Provo	Utah	4,532	19	29.6	− 1.7	55	10	− 5	15	43	1.65	+ 0.16	0.45	12.5	7	14	10	4	n.	James A. Oliver.
Randolph	Rich	6,442	8	.....	.....	.....	.....	.....	.....	.....	0.67	.....	0.20	.....	5	15	0	13	.....	Wm. Rex.
Richfield	Sevier	5,350	21	30.1	− 2.5	59	1	4	15†	40	1.05	+ 0.32	0.70	3.5	4	18	3	7	.....	Joseph J. Jensen.
Saltair	Salt Lake	4,220	8	30.2[c]	.....	53	11	12	17	24	1.25	.....	0.28	13.0	9	.....	.....	.....	.....	E. J. Bench.
Salt Lake City	....do	4,360	38	30.4	− 2.5	56	11	11	17	26	1.94	+ 0.56	0.56	15.0	8	10	7	11	nw.	U. S. Weather Bureau.
Scipio	Millard	5,260	16	27.6	− 4.2	54	11	−17	15	54	1.77	+ 0.03	0.81	10.0	10	10	8	10	sw.	Thos. Memmott.
Silver City	Juab	6,127	1	.....	.....	.....	.....	.....	.....	.....	0.84	.....	0.38	8.0	9	12	12	4	sw.	J. L. Stark.
Spanish Fork	Utah	4,585	2	31.3	.....	60	1	9	15†	38	1.83	.....	0.83	.....	8	7	14	7	.....	U. S. Reclamation Service.
Strawberry Tunnel	....do	7,650	5	19.8	.....	42	10†	− 6	15	35	2.80	.....	0.95	28.0	11	10	13	5	.....	Do.
Thistle	....do	5,075	19	26.1	− 4.0	60	11	−11	15	45	1.58	+ 0.07	0.60	.....	3	4	14	10	nw.	John Thorgeirson.
Tooele	Tooele	4,900	15	.....	.....	.....	.....	.....	.....	.....	2.23	+ 0.99	0.85	.....	11	4	12	12	nw.	E. A. Bonelli.
Utah Lake Pump'g Sta.	Utah	4,500	6	33.4	.....	56	9	− 2	27	36	0.83	.....	0.31	12.5	7	9	8	11	sw.	W. A. Knight.
Woodruff	Rich	6,500	13	7.2[c]	−10.8	36	11	−30	17	48	0.85	− 0.07	0.60	8.5	3	13	7	8	n.	J. Sidney Pusey.
Oregon.																				
Burns	Harney	4,157	20	18.0	− 9.0	39	1	− 7	15	37	0.50	− 0.91	0.18	7.0	4	14	9	5	n.	J. C. Welcome, jr.
Christmas Lake	Lake	4,300	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John C. Green.
Paisley	....do	4,500	8	27.3	.....	45	10†	10	28	27	1.33	.....	0.60	14.0	5	9	11	8	sw.	E. C. Woodward.
California.																				
Al Tahoe	Eldorado	6,235	....	21.8	.....	45	3	−14	16	57	3.25	.....	1.20	32.5	9	5	16	7	sw.	R. J. Clark.
Glen Alpine	....do	6,850	1	21.3	.....	39	8†	0	17	36[b]	4.97	.....	1.40	49.7	11	.....	.....	.....	s.	Carl Fluegge.
Tahoe	Placer	.....	1	22.0	.....	44	10	−10	26	39	3.80	.....	1.30	50.0	8	7	8	13	sw.	R. M. Watson.
Truckee	Nevada	5,819	40	13.2	−14.8	46	1	−22	26	32	5.30	+ 0.16	1.80	53.0	4	11	11	6	.....	Southern Pacific Co.
Nevada.																				
Aurora	Esmeralda	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. I. Cain.
Austin	Lander	6,594	22	24.9	− 5.8	48	9	− 2	16	41	2.70	+ 1.31	1.40	27.0	9	11	3	14	nw.	F. O. Booe.
Battle Mountain	....do	4,843	40	32.3	+ 0.2	58	3	6	17	32	0.40	− 0.42	0.30	4.0	2	16	6	6	.....	Southern Pacific Co.
Beowawe	Eureka	4,905	40	29.0	− 2.3	52	3	0	26†	42	0.55	− 0.19	0.20	2.5	4	5	13	10	sw.	Do.
Carlin	Elko	5,232	40	27.3	+ 0.8	58	3	−11	25	43	0.60	− 0.39	0.40	6.0	2	.....	.....	.....	.....	Do.
Carson Dam	Churchill	4,032	4	32.2	.....	55	10	10	17	33	0.78	.....	0.40	1.6	2	12	5	11	n.	U. S. Reclamation Service.
Cherry Creek	White Pine	6,450	3	23.6	.....	45	9†	− 9	26	39	0.86	.....	0.17	11.4	8	10	13	5	w.	J. H. Leishman.
Clover Valley	Elko	6,000	11	23.4[d]	− 5.8	48	6†	− 9	17	58[d]	1.52	− 0.86	0.34	7.5	7	17	5	6	.....	I. F. Wiseman.
Cobre	....do	.....	2	23.2	.....	48	13	− 9	21	41	1.27	.....	0.42	12.7	6	21	7	0	ne.	Southern Pacific Co.
Columbia	Esmeralda	5,750	4	28.6	.....	48	9	3	26	33	1.21	.....	0.44	10.5	7	10	8	10	se.	A. Booth.
Dutton	Elko	5,100	3	26.8	.....	48	3†	0	15	34	0.05	.....	0.05	0.5	1	4	11	13	n.	Golconda Cattle Co.
Elko	....do	5,342	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Ely	White Pine	6,421	20	22.6	− 6.1	46	1	−14	16†	43	2.12	+ 1.03	0.60	21.1	6	21	4	3	w.	G. C. Hunting.
Eureka	Eureka	6,500	8	25.0	.....	45	3	− 7	16	41	1.30	.....	0.38	26.0	9	10	4	14	n.	Clay Simms.
Fallon	Churchill	3,965	6	32.2	.....	57	10	9	16†	38	0.69	.....	0.27	2.2	5	9	12	7	nw.	U. S. Experiment
Fernley	Lyon	4,200	38	31.2	− 5.8	56	22	5	16†	46	0.30	− 0.50	0.15	5.3	3	22	3	3	.....	Mrs. Geo. A. Steele.
Gardnerville	Douglas	4,830	11	31.6	− 4.8	51	9	− 3	26	41	2.00	+ 0.46	0.60	20.0	5	12	6	10	e.	Wm. Dangberg.
Geyser	Lincoln	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. J. F. Wambolt.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL SUMMARY.

February was a stormy month; it was unusually windy, and more than the usual amount of snow fell, but the precipitation as a whole was about normal. The temperature averaged much below normal. Stock suffered considerably, and little outside work was done.

TEMPERATURE.

The temperature for the district as a whole averaged 25.6°, which is almost 5° below normal. The lowest mean temperatures occurred in the mountainous parts of Utah and the eastern portion of the Oregon area. Almost every station in the district reported negative temperature departures, and the few positive departures reported were very small. The greatest deficiencies occurred in the Oregon area, in central Nevada, and in the extreme northern and southern portions of the Utah area.

The mean temperatures at the various stations ranged from 7.2° at Woodruff, Utah, to 49° at Jean, Nev. The temperature departures varied from 14.8° below normal at Truckee, Cal., whose mean was 13.2° to 0.8° above normal at Carlin, Nev., whose mean temperature was 27.3°.

During the first decade the weather was unusually mild over the entire district, except in the Oregon area, where decidedly low temperatures occurred, the weather there being controlled by a high pressure area of considerable energy, and temperatures fell as low as −4° on the 6th at Burns, Oreg.

Decidedly cold weather set in on the 11th in Nevada, reaching the Utah area on the 14th, although in the Idaho, Wyoming, and northeastern portion of the Utah areas quite low temperatures were recorded in the early part of the month. This cold spell was due to continued northerly winds, a high pressure area having prevailed in the Northwest for several days.

Warm weather set in about the 17th in the Nevada area, and about the 20th in Utah. The weather continued warm as a rule until the close of the month.

The highest temperatures occurred as a rule during the first decade and ranged from 39° to 46° in the Wyoming and Idaho areas, from 42° to 67° in the Utah area, and from 39° to 65° in the remainder of the district. The highest temperature reported was 67° at Iosepa, Utah, on the 11th.

The lowest temperatures occurred from the 15th to the 18th, but some stations in the Utah, Oregon, and California areas reported their lowest as occurring on the 26th and 27th. The lowest temperatures ranged from −33° to 36°. The lowest occurred at Border and Cokeville, Wyo., on the 17th.

PRECIPITATION.

The average precipitation for the district is 1.40 inches, which is about normal. The precipitation chart shows the usual geographical distribution, large amounts being recorded on the western slope of the Wasatch Mountains in Utah, locally in Nevada, and on the eastern slope of the Sierras in California.

The chart of precipitation departures does not indicate any regular distribution of the amounts above or below normal, stations quite near one another reporting departures differing greatly.

The greatest monthly amount is 6.94 inches at Deer Park, Cal., and the least 0.01 at Willow Point, Nev.

The month opened with general precipitation, continuing until the 7th, due to three distinct storms passing over the district during that period. These storms were followed by fair weather, which prevailed until the 10th, when another storm appeared off the California coast, causing precipitation in the Oregon and California areas on that date, in Nevada and Utah on the 11th, and the remaining portion of the district on the 12th. Precipitation from this storm ceased about the 14th; but snow and rain continued to fall at scattered stations in the Utah and Nevada areas until the 23d, when precipitation again became general in Nevada, and in Utah on the 25th, due to storms central in the Southwest. The last few days of the month were fair.

On the 25th an unusually heavy snow storm occurred in Northern Utah. At Salt Lake City, Utah, 7 inches were recorded, while at Ogden, 37 miles north of Salt Lake City, 9 inches were reported.

The prospective water supply for the ensuing crop season was much greater at the end of February than at any previous date this winter. The February fall of snow was unusually heavy, and it lay in the mountains and hills, drifted and well packed, a condition favorable for late melting.

TABLE 1.—*Climatological data for February, 1911. District No. 10, Great Basin.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Border	Uinta	6,085	9	8.2	− 5.4	39	5	−33	17	44	1.03	− 0.35	0.27	.....	6	16	4	8	w.	S. W. Condron.
Cokeville	....do	6,204	1	10.8	.....	44	2†	−33	17	44	1.01	.....	0.40	21.0	10	16	6	6	nw.	E. J. Tuckett.
Evanston	....do	6,860	14	14.8	− 5.8	40	10†	−23	17	44	1.51	+ 0.27	0.37	13.0	5	14	5	9	sw.	Frank Tucker.
Idaho.																				
Geneva	Bear Lake	.....	3	.....	.....	.....	.....	.....	.....	.....	0.54	.....	0.42	5.5	2	23	3	2	.....	F. W. Boehme.
Grace	Bannock	5,400	5	22.0	.....	46	11	−10	17	39	0.48	.....	0.22	7.6	5	17	5	6	s.	C. B. Dickson.
Paris	Bear Lake	5,946	17	12.0[b]	− 7.1	41	5	−30[d]	16	48[d]	1.78	+ 0.55	0.80	22.0	6	17	3	8	n.	John Norton.
Stone	Oneida	4,520	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. W. Roe.
Weston	....do	4,460	13	20.2	− 6.0	44	1†	−11	17	36	0.96	− 0.25	0.29	12.0	7	17	2	9	n.	W. T. Chatterton.
Utah.																				
Alpine	Utah	4,900	14	.....	.....	.....	.....	.....	.....	.....	0.48	− 1.57	0.25	10.0	4	12	12	4	.....	George Stevens.
Beaver	Beaver	6,000	8	28.6	.....	50	10	− 5	15	30	0.79	.....	0.40	6.9	5	10	12	6	sw.	James Connell.
Black Rock	Millard	4,872	11	27.6	.....	54	10†	− 3	22	39	1.71	+ 0.55	0.70	12.0	5	9	6	13	.....	W. D. Livingston.
Castle Rock	Summit	6,244	8	.....	.....	.....	.....	.....	.....	.....	1.25	.....	0.40	20.0	9	13	7	8	e.-ne.	David Moore.
Cedar City	Iron	5,750	6	27.8[c]	.....	51	9†	2	17	31[c]	1.02	.....	0.37	13.2	6	.....	.....	.....	.....	Parley Dalley.
Corinne	Boxelder	4,240	41	26.0	− 4.2	52	11	2	17	43	1.00	− 0.20	0.60	10.0	3	14	8	6	.....	A. C. Murphy.
Deseret	Millard	4,541	17	27.4	− 3.7	54	11	− 8	17	37	0.49	− 0.38	0.23	11.0	6	13	7	8	s.-n.	S. W. Western.
Enterprise	Washington	4,270	3	.....	.....	.....	.....	.....	.....	.....	2.60	.....	1.15	18.0	5	4	14	10	s.	John Day.
Fairfield	Utah	4,866	0	.....	.....	.....	.....	.....	.....	.....	1.38	.....	0.45	14.3	10	18	4	6	sw.	W. Harden Ashby.
Farmington	Davis	4,267	11	30.2	− 3.0	54	11	7	27	30	2.42	− 0.21	1.00	21.0	8	17	7	4	sw.	Charles Boylin.
Fillmore	Millard	5,100	21	31.3	− 2.5	59	10	3	18	38	1.14	− 0.34	0.72	.....	4	.....	.....	.....	.....	J. J. Starley.
Frisco	Beaver	7,318	17	25.7	− 8.4	46	10†	2	20	27	0.54	− 0.17	0.16	.....	6	.....	.....	.....	.....	E. R. Smyth.
Garrison	Millard	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. M. Smith.
Government Creek	Tooele	5,277	11	25.8	− 5.7	56	8	− 4	17	41	1.53	+ 0.13	0.80	20.0	8	13	5	10	n.	Walter James.
Grantsville	....do	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. J. C. Woodmansee.
Grouse Creek	Boxelder	.....	1	.....	.....	.....	.....	.....	.....	.....	0.69	.....	0.28	10.4	5	12	14	2	sw.	Phillip Paskett.
Heber	Wasatch	5,606	18	23.5	− 0.4	46	10	−16	17	43	1.34	− 0.76	0.60	17.5	10	12	10	6	s.	John Crook.
Henefer	Summit	5,301	12	21.4	− 5.1	51	10	−18	17	49	1.99	− 0.23	0.54	20.0	9	11	8	9	nw.	Wm. Brewer.
Ibapah (near)	Tooele	7,500	6	17.2	.....	42	9	−10	16	43	3.64	.....	1.00	38.4	10	13	8	7	n.	J. S. Lawton.
Ibex	Millard	.....	1	30.8	.....	58	10	5	17	37	1.00	.....	0.50	11.0	4	8	6	14	s.	John J. Watson.
International	Tooele	5,370	2	.....	.....	.....	.....	.....	.....	.....	1.21	.....	0.35	18.0	9	11	11	6	se.	I. S. & R. Co.
Iosepa	....do	.....	1	32.2	.....	67	11	0	27	44	1.01	.....	0.55	.....	7	5	18	5	n.	Geo. K. Hubbell.
Kanosh	Millard	5,250	3	.....	.....	.....	.....	.....	.....	.....	1.52	.....	0.78	.....	8	.....	.....	.....	.....	Geo. Crane.
Kelton	Boxelder	4,230	33	23.2	− 5.8	52	3	0	27	33	1.00	+ 0.38	0.40	10.0	5	1	18	9	ne.	F. W. Klock.
Levan	Juab	5,010	21	26.2	− 2.4	53	11	− 2	15†	29	1.38	− 0.23	0.75	12.0	5	15	6	7	n.	Wm. Brown.
Logan	Cache	4,507	20	21.3	− 4.9	48	11	− 7	17	40	1.46	+ 0.16	0.45	12.5	7	.....	.....	.....	.....	Utah Exp. Station.
Lucin	Boxelder	4,504	7	24.8	.....	50	4†	− 4	9	53	1.10	.....	0.40	11.0	4	15	11	2	.....	C. J. Burke.
Manti	Sanpete	5,575	17	25.7	− 2.8	48	5	0	16	29	0.74	− 0.74	0.27	8.5	6	10	3	15	.....	J. M. Anderson.
Marion	Summit	6,750	7	.....	.....	.....	.....	.....	.....	.....	1.37	.....	0.35	20.0	10	8	6	14	n.	Jas. Woolstenhulme.
Marysvale	Piute	6,280	12	27.6	− 4.5	53	10	2	15	40	0.91	− 0.11	0.25	11.2	10	11	8	9	n.	John W. Henry.
Meadowville	Rich	6,200	12	17.4	− 5.0	42	11	−10	27	41	1.83	+ 0.81	0.60	16.0	9	16	1	11	e.	J. S. Moffat.
Milford	Beaver	4,962	7	27.8	.....	53	1†	− 7	18	41	1.40	.....	0.80	.....	5	8	9	11	n.	J. C. Manuel.
Millville	Cache	4,848	16	.....	.....	.....	.....	.....	.....	.....	1.57	+ 0.35	0.46	.....	8	7	15	6	s.	Fred Yeates.
Minersville	Beaver	5,070	14	.....	.....	.....	.....	.....	.....	.....	1.47	+ 0.50	0.37	12.0	7	.....	.....	.....	.....	Geo. Roberts, sr.
Modena	Iron	5,479	11	25.8	− 5.8	48	10	− 6	15	32	1.51	+ 0.31	0.66	13.2	10	7	13	8	w.	U. S. Weather Bureau.
Morgan	Morgan	4,280	8	21.2	.....	48	11	−11	15	48	2.65	.....	0.70	25.0	7	6	11	11	e.	W. Visick.
Moroni	Sanpete	5,519	3	28.0	.....	51	11	1	17	34	0.80	.....	0.26	8.1	8	10	9	9	sw.	B. F. Eliason.
Mount Nebo	Utah	4,650	10	30.7	− 1.7	55	12	− 2	17	34	1.44	+ 0.32	1.08	11.0	7	18	6	4	n.	D. C. Walkey.
Nephi (near)	Juab	6,059	8	.....	.....	.....	.....	.....	.....	.....	0.51	.....	0.28	.....	4	.....	.....	.....	.....	S. Boswell.
Oak City	Millard	4,900	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Peter Nielson.
Ogden	Weber	4,310	10	27.4[a]	− 4.9	52	11	1	27	33[a]	1.52	− 0.70	0.95	14.0	6	11	9	8	n.	A. Van De Graaff.
Park City	Summit	7,800	14	19.8	− 7.5	42	10	− 9	17	42	1.51	− 1.33	0.80	.....	7	8	16	4	.....	Irvin Evans.
Parowan	Iron	5,970	20	29.2	− 2.4	60	24	2	17†	46	2.01	+ 0.68	0.90	9.0	4	13	0	15	.....	S. M. Matheson.
Payson	Utah	4,637	1	.....	.....	.....	.....	.....	.....	.....	2.33	.....	1.00	22.5	10	10	7	11	sw.	D. L. Coombs.
Pinto	Washington	5,907	14	24.2[c]	− 6.8	48	10	− 8	20	39	1.38	− 0.19	0.42	10.0	4	13	3	12	s.	J. H. Harrison.
Promontory	Boxelder	4,913	40	.....	.....	.....	.....	.....	.....	.....	2.40	+ 1.58	0.80	24.0	7	.....	.....	.....	.....	F. C. Houghton.
Provo	Utah	4,532	19	29.6	− 1.7	55	10	− 5	15	43	1.65	+ 0.16	0.45	12.5	7	14	10	4	n.	James A. Oliver.
Randolph	Rich	6,442	8	.....	.....	.....	.....	.....	.....	.....	0.67	.....	0.20	.....	5	15	0	13	.....	Wm. Rex.
Richfield	Sevier	5,350	21	30.1	− 2.5	59	1	4	15†	40	1.05	+ 0.32	0.70	3.5	4	18	3	7	.....	Joseph J. Jensen.
Saltair	Salt Lake	4,220	8	30.2[c]	.....	53	11	12	17	24	1.25	.....	0.28	13.0	9	.....	.....	.....	.....	E. J. Bench.
Salt Lake City	....do	4,360	38	30.4	− 2.5	56	11	11	17	26	1.94	+ 0.56	0.56	15.0	8	10	7	11	nw.	U. S. Weather Bureau.
Scipio	Millard	5,260	16	27.6	− 4.2	54	11	−17	15	54	1.77	+ 0.03	0.81	10.0	10	10	8	10	sw.	Thos. Memmott.
Silver City	Juab	6,127	1	.....	.....	.....	.....	.....	.....	.....	0.84	.....	0.38	8.0	9	12	12	4	sw.	J. L. Stark.
Spanish Fork	Utah	4,585	2	31.3	.....	60	1	9	15†	38	1.83	.....	0.83	.....	8	7	14	7	.....	U. S. Reclamation Service.
Strawberry Tunnel	....do	7,650	5	19.8	.....	42	10†	− 6	15	35	2.80	.....	0.95	28.0	11	10	13	5	.....	Do.
Thistle	....do	5,075	19	26.1	− 4.0	60	11	−11	15	45	1.58	+ 0.07	0.60	.....	3	4	14	10	nw.	John Thorgeirson.
Tooele	Tooele	4,900	15	.....	.....	.....	.....	.....	.....	.....	2.23	+ 0.99	0.85	.....	11	4	12	12	nw.	E. A. Bonelli.
Utah Lake Pump'g Sta.	Utah	4,500	6	33.4	.....	56	9	− 2	27	36	0.83	.....	0.31	12.5	7	9	8	11	sw.	W. A. Knight.
Woodruff	Rich	6,500	13	7.2[c]	−10.8	36	11	−30	17	48	0.85	− 0.07	0.60	8.5	3	13	7	8	n.	J. Sidney Pusey.
Oregon.																				
Burns	Harney	4,157	20	18.0	− 9.0	39	1	− 7	15	37	0.50	− 0.91	0.18	7.0	4	14	9	5	n.	J. C. Welcome, jr.
Christmas Lake	Lake	4,300	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John C. Green.
Paisley	....do	4,500	8	27.3	.....	45	10†	10	28	27	1.33	.....	0.60	14.0	5	9	11	8	sw.	E. C. Woodward.
California.																				
Al Tahoe	Eldorado	6,235	....	21.8	.....	45	3	−14	16	57	3.25	.....	1.20	32.5	9	5	16	7	sw.	R. J. Clark.
Glen Alpine	....do	6,850	1	21.3	.....	39	8†	0	17	36[b]	4.97	.....	1.40	49.7	11	.....	.....	.....	s.	Carl Fluegge.
Tahoe	Placer	.....	1	22.0	.....	44	10	−10	26	39	3.80	.....	1.30	50.0	8	7	8	13	sw.	R. M. Watson.
Truckee	Nevada	5,819	40	13.2	−14.8	46	1	−22	26	32	5.30	+ 0.16	1.80	53.0	4	11	11	6	.....	Southern Pacific Co.
Nevada.																				
Aurora	Esmeralda	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. I. Cain.
Austin	Lander	6,594	22	24.9	− 5.8	48	9	− 2	16	41	2.70	+ 1.31	1.40	27.0	9	11	3	14	nw.	F. O. Booe.
Battle Mountain	....do	4,843	40	32.3	+ 0.2	58	3	6	17	32	0.40	− 0.42	0.30	4.0	2	16	6	6	.....	Southern Pacific Co.
Beowawe	Eureka	4,905	40	29.0	− 2.3	52	3	0	26†	42	0.55	− 0.19	0.20	2.5	4	5	13	10	sw.	Do.
Carlin	Elko	5,232	40	27.3	+ 0.8	58	3	−11	25	43	0.60	− 0.39	0.40	6.0	2	.....	.....	.....	.....	Do.
Carson Dam	Churchill	4,032	4	32.2	.....	55	10	10	17	33	0.78	.....	0.40	1.6	2	12	5	11	n.	U. S. Reclamation Service.
Cherry Creek	White Pine	6,450	3	23.6	.....	45	9†	− 9	26	39	0.86	.....	0.17	11.4	8	10	13	5	w.	J. H. Leishman.
Clover Valley	Elko	6,000	11	23.4[d]	− 5.8	48	6†	− 9	17	58[d]	1.52	− 0.86	0.34	7.5	7	17	5	6	.....	I. F. Wiseman.
Cobre	....do	.....	2	23.2	.....	48	13	− 9	21	41	1.27	.....	0.42	12.7	6	21	7	0	ne.	Southern Pacific Co.
Columbia	Esmeralda	5,750	4	28.6	.....	48	9	3	26	33	1.21	.....	0.44	10.5	7	10	8	10	se.	A. Booth.
Dutton	Elko	5,100	3	26.8	.....	48	3†	0	15	34	0.05	.....	0.05	0.5	1	4	11	13	n.	Golconda Cattle Co.
Elko	....do	5,342	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Ely	White Pine	6,421	20	22.6	− 6.1	46	1	−14	16†	43	2.12	+ 1.03	0.60	21.1	6	21	4	3	w.	G. C. Hunting.
Eureka	Eureka	6,500	8	25.0	.....	45	3	− 7	16	41	1.30	.....	0.38	26.0	9	10	4	14	n.	Clay Simms.
Fallon	Churchill	3,965	6	32.2	.....	57	10	9	16†	38	0.69	.....	0.27	2.2	5	9	12	7	nw.	U. S. Experiment
Fernley	Lyon	4,200	38	31.2	− 5.8	56	22	5	16†	46	0.30	− 0.50	0.15	5.3	3	22	3	3	.....	Mrs. Geo. A. Steele.
Gardnerville	Douglas	4,830	11	31.6	− 4.8	51	9	− 3	26	41	2.00	+ 0.46	0.60	20.0	5	12	6	10	e.	Wm. Dangberg.
Geyser	Lincoln	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. J. F. Wambolt.

TABLE 1.—*Climatological data for February, 1911. District No. 10*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
Nevada—Continued.																			
Glenbrook	Douglas	.....	2	23.5	.....	44	9	−10	15	35	5.40	.....	.....	54.0	13	12	11	5	sw.	C. C. Henningsen.
Golconda	Humboldt	4,697	32	28.1	− 5.9	49	2	− 1	16	31	0.30	− 0.36	0.30	3.0	1	15	5	8	w.	Southern Pacific Co.
Halleck	Elko	5,631	18	22.0	− 4.0	47	10	−20	15†	50	0.75	− 0.10	0.50	7.5	3	17	9	2	.....	Do.
Jean	Clark	2,074	3	49.0	.....	65	9	36	16	20	0.75	.....	0.40	0	3	9	0	19	nw.	Salt Lake Route.
Lewer's Ranch	Washoe	5,500	23	28.6	− 5.7	50	9	2	16	36	3.30	− 1.76	1.40	33.0	5	7	14	7	.....	Ross Lewers.
Lovelock	Humboldt	3,977	17	32.4	− 3.1	58	23	11	16	33	0.11	− 0.42	0.05	2.2	3	9	11	8	s.	C. H. Allender.
McAfee's Ranch	Emeralda	4,835	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Rodenkirch.
Millett	Nye	.....	3	27.6	.....	50	9	− 2	16†	42	1.08	.....	0.44	11.5	6	10	4	14	s.	Fred J. Jones.
Mina	Esmeralda	4,600	4	33.4	.....	55	1	9	27	36	1.40	.....	0.60	14.0	5	15	4	9	s.	Southern Pacific Co.
Palmetto	do	6,780	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. J. Akin.
Potts	Nye	6,990	18	19.6	− 7.5	42	3	−24	16	47	0.52	− 0.21	0.45	13.0	4	5	5	18	s.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	9	28.4	.....	51	3	3	16	41	0.08	.....	0.08	T.	1	11	3	14	w.	F. M. Payne.
Reno	Washoe	4,532	40	30.4	− 5.2	54	9	5	16	37	0.57	− 1.22	0.20	6.7	6	9	12	7	w.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	4	31.7	.....	55	2†	10	16†	36	0.42	.....	0.15	7.0	4	5	17	6	n.	C. G. Swingle.
Tecoma	Elko	4,812	33	20.2	− 6.7	52	1	−13	28	44	1.45	+ 0.88	0.60	14.5	4	6	10	12	s.	Southern Pacific Co.
Tonopah	Nye	6,090	4	25.7	.....	42	8	5	16	25	0.94	.....	0.36	14.1	7	11	11	6	se.	U. S. Weather Bureau.
Wabuska	Lyon	4,347	8	28.9	.....	54	2	8[b]	18	40	0.53	.....	0.42	5.3	3	15	0	13	s.	Vic Bernard.
Wells	Elko	5,631	39	20.4	− 5.1	45	5†	−26	17	55	0.85	− 0.37	0.77	16.0	8	8	9	11	.....	Southern Pacific Co.
Winnemucca	Humboldt	4,432	32	29.3	− 4.0	52	10	4	16	30	0.21	− 0.72	0.05	3.8	5	9	4	15	ne.	U. S. Weather Bureau.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
¶ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 10, Great Basin.*

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Wyoming.																														
Border	Bear		T.	.15	.09	.16	.15						.21	T.													.27			1.03
Cokeville	do	.05	.01	.11	.14	.03	.08						.05	.13	.01											T.	.40			1.01
Evanston	do		.37		.10	T.	.30						.18	T.	.21					T.	T.						.35			1.51
Idaho.																														
Geneva	Bear				.42									.12																0.54
Grace	do			.07	.22		.05							.08												.06				0.48
Paris ‖	do	.50	.18	.15	.10			.05							.80															1.78
Stone	Deep Creek																													
Weston	Bear	.07		.05	.29								.20	.18												.10	.07			0.96
Utah.																														
Alpine	Great Salt Lake					.10										.04				T.	T.					.25	.09			0.48
Beaver	Sevier Lake				.40	.04							.10		.20											.05	T.	T.		0.79
Black Rock	do				.50								.18		.70											.20			.13	1.71
Castle Rock	Great Salt Lake	.40		.10	.15	.05	.05						.05		.15											.25	.05			1.25
Cedar City	Desert				.32								.03		.37		.09					T.			T.	T.	.19	.02		1.02
Corinne	Great Salt Lake				.60									.20												.20				1.00
Deseret	Sevier Lake				.07								.04		.23					.03						.08			.04	0.49
Enterprise	Desert			1.15							.10				*	.64				T.									.71	2.60
Farmington	Great Salt Lake	.15		.10	.30	.47	T.						.10	.20	.10										1.00					2.42
Fillmore	Sevier Lake				.20		T.								.72	T.	T.			.01	T.						.21		T.	1.14
Frisco	Desert		.04		.08										.09												.12		.16	0.54
Garrison	do																													
Government Creek	do	.05			.12	.04							.19		.80											.20	.05		.08	1.53
Grantsville	Great Salt Lake																													
Grouse Creek	Desert			T.	.28		T.	.08						.21					T.		T.			.07		T.		T.	.05	0.69
Heber	Great Salt Lake	.05		.05	.15	.20	.10	T.					.05	*	.60						T.					.08	.06	T.		1.34
Henefer	do	.51		.10	.28	.10	.09						.09	.09	.54						T.					.19	T.			1.99
Ibapah (near)	Desert	.30			.45	.04							.30		1.00	T.				.43	.10	T.	T.	.40	T.		.22	T.	.40	3.64
Ibex	do				.11								.14		.50				T.										.25	1.00
International	Great Salt Lake						.03	.31					.07		.35						T.	.01				.09	.17	.08	.10	1.21
Iosepa	Desert	.16			.55								.06	.10												.06	.05		.03	1.01
Kanosh	Sevier Lake	.05			.09								.25		.78	.06			.03								.24	.02		1.52
Kelton	Great Salt Lake				.20	.20										.10							.10		T.		.40		T.	1.00
Levan	Sevier Lake	T.			.23		T.						.02		.75											.30	.08			1.38
Logan	Great Salt Lake		.20		.45	.10	.02						.15		.33												.21			1.46
Lucin	Desert				.40									.40							T.			.20		.10	T.		T.	1.10
Manti	Sevier Lake				.11	T.								T.	.27	.21				T.		.04				.06	.05			0.74
Marion	Great Salt Lake	.23	T.	.03	.04	.05	.25	T.					.15	.10	.35					T.	T.					.13	.04		T.	1.37
Marysvale	Sevier Lake	.04		.01	.13	.06							T.		.15		T.			T.	T.	T.			.01	.12	.08	.06	.25	0.91
Meadowville	Great Salt Lake	.05		.25	.60	.30	.05						.20		.08											.20	.10			1.83
Milford	Sevier Lake				10								.30		.80					.10									.10	1.40
Millville	Great Salt Lake	.33	.14		.46	.18	.09						.14	.10												.13				1.57
Minersville	Sevier Lake				.37							.30		.31	.10											.32		.04	.03	1.47
Modena	Desert				.28								.06	.01	.21	.02				T.				T.	.02	.02	.03	.34	.52	1.51
Morgan	Great Salt Lake	.60		.25	.10	.35	.35							.70												.30				2.65
Moroni	Sevier Lake	.17		.02	.06	.14	T.							T.	.26	.01				T.	T.	.04			T.	.10	T.			0.80
Mount Nebo	Great Salt Lake	.08			.10	.05							.05	T.	1.08											.03	.05			1.44
Nephi (near)	do								.08				.28					.10							.05					0.51
Oak City	Sevier Lake																													
Ogden	Great Salt Lake		.15		.95		T.					.07		.03												.30			.02	1.52
Park City	do	.80	.02		.10	.30							.06	.03	.20															1.51
Parowan	Desert							.59					.20		.90												.32	T.		2.01
Payson	Great Salt Lake	.11		.06	.19	.09	.05	.03					.35	T.	1.00											.33	.12			2.33
Pinto	Desert				52								.11		.42												*	*	.33	1.38
Promontory	Great Salt Lake		.20		.80	.20				.20				.40							.40						.20			2.40
Provo	do				.45	.30							.10	.05	.30											.35	.10			1.65
Randolph	do		T.	T.	.16							T.	T.	T.	.15				T.	T.	T.	.08				.20	.08	T.		0.67
Richfield	Sevier Lake				70								T.		.05					.10						T.	.20			1.05
Saltair	Great Salt Lake	.28		.04	.09	.15							.10		.24	.03										.28	.04			1.25
Salt Lake City	do	.22	.20		.38		.03						.09	.37	T.											.56	.03		.06	1.94
Scipio	Desert	.14		.12		.32		.03					T.		.81	.05				.05	.06					.16	.03			1.77
Silver City	do	.03			.12	.04							.04		.38				.04	.02						.10	.07			0.84
Spanish Fork	Great Salt Lake	.12		.01	*	.28	T.						.18	.02	.83						T.					.36	.03	T.		1.83
Strawberry Tunnel	do	.20	T.	.05	.25	.40	T.	T.					.05	.20	.95	.05				T.	.15	T.		.10	T.	.40	T.	T.		2.80
Thistle	do	T.	T.	T.	.40	T.	T.						T.	T.	.60						T.					.58	T.		T.	1.58
Tooele	do	.28		.02	.14	.04	.10						.30	T.	.85	.02					.01					.24	.23		T.	2.23
Utah Lake Pump. Sta.	do			.05		.01								.19	.14											.31	.12	.01		0.83
Woodruff	do			.60										.15											.10					0.85
Oregon.																														
Ana River	SE. Drainage		.17			.02	T.					.02		.12				T.			T.					T.	.01		T.	0.34
Burns	do		.10			.18							13												.09				0.50
Burns Mill	do	.60		.20		.10					.20						.40					.25						.10		1.85
Christmas Lake	do																													
Diamond	do		.14			T.						T.	.04					T.	T.	.12	T.		T.	.04	T.	.07	T.	T.		0.41
Embody	do	.30	.84				.32						.60	.20						T.		T.		.01	T.	.05	T.	.10	.02	2.44
Fort Rock	do	.10									.04		.30																	0.44
Paisley	do		.23	.10			.20																				.60	.20		1.33
Valley Falls	do	T.	.78			.06						.60						T.	T.	T.				.06	.05		.22		.15	1.92
California.																														
Al Tahoe	Truckee										*	1.20	.40	.40	.60									.10	.20	T.	T.	.15	.10	3.25
Bijou	do	.04	.03		.14	.05	.04					.08	.82	.62	.06									.20	.15	.08		.14		2.45
Boca	do	.73	.20		.20	.20						.80	.40		.80								.40							3.73
Bodie	East Walker																													
Bridgeport	do					.19	.32	.12									.40	.11	.21					.32	.40	.62	.49	.57		3.75
Deer Park	Truckee	.40	.32		.50	.25	.48				*	1.66	.17	2.00	.40						.05			.22		.25	.02	.20	.02	6.94
Donner Ice Camp	do																													2.20
Fales' Hot Springs	West Walker																													
Glen Alpine	Truckee		.30	.10	.20	.30						1.25	.10	.40										.95		.30	.05	.02		4.97
Hobart Mills	do	.12	.20		.27	.03	.02				*	1.02		1.00	.17									.11	.04				.02	3.00
Lundy	East Walker																													
Markleeville	East Carson	.20			.18	T.	.20				.80	.52			T.									.65	.50		.18	.80	T.	4.03
McKinney	Truckee	.06	.90		.28	.34	.18					1.45	.39	1.93	.41									.40	.02	.29			T.	6.65
Shields Ranch	West Walker																													
Silver Creek	East Carson	.24			.30	.10	.20				.82	.74											T.	.60	.62		.30	.80	.11	4.83
Tahoe	Truckee		.20		.20		.20				.90		1.30	.80										.10		.10				3.80
Tallac	do	.60			.30		.35					1.30		1.40	.80									.80		.50				6.05
Truckee	do	.80										1.80		1.50								T.				T.				5.30
Woodfords	West Carson			.04								.45				T.								.10		.11		.10	.12	0.92
Nevada.																														
Arthur	Humboldt	.04			.40						.20			1.00	.20				.10					.15		.80		.30		3.19
Aurora	East Walker																													
Austin	Reese				.60							.05		*	1.40					.10				.05	.20			.20	.10	2.70
Battle Mountain	Humboldt											T.								.10			.30							0.40

TABLE 2.—*Daily precipitation for February, 1911. District No. 10*—Continued.

Stations.	Watershed.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Nevada—Continued.																														
Beowawe	Humboldt				.20									.10	.05									.20						0.50
Bishop	do		T.		.10	T.						T.	T.	.80	T.				T.	.11	T.	.08		.15						1.24
Carlin	do				.20									.40																0.60
Carson Dam	Carson				T.							T.			T.				T.					.38				T.	.40	0.78
Cherry Creek	Humboldt	.13	T.		.15	T.						T.	.17	.13	.12				T.	.07				.03		T.			.06	0.86
Clover Valley	do	.34	.22		.27									.32										.20		.12		.05		1.52
Cobre	do				.40									.42					T.	.10	.05			.20		.10				1.27
Columbia	Desert				.44							.03	.08												.25	.01		.30	.10	1.21
Dutton	Humboldt													.05																0.05
Elko	do																													
Ely	do											.60	.45		.55					.11				.13					.28	2.12
Eureka	do				.09							.12		.38	.04				.10	.04				.08		.15		.30		1.30
Fallon	Carson				.26									.03	.01									.27		T.			.12	0.69
Fernley	Truckee				.07							T.		T.					T.	T.	T.			.15	T.			.08		0.30
Gardnerville	Carson	.40										.40		T.	.30									T.	.60			.30		2.00
Geyser	Humboldt																													
Glenbrook	Truckee		.30		.20	.20					*	.60	*	2.20							.40			.20	.15	.50		.60	.05	5.40
Golconda	Humboldt													.30																0.30
Halleck	do				.20									.50					.05											0.75
Jean	Desert			.05	.40																							.30		0.75
Lewers' Ranch	Truckee				T.	1.40						.50		.40										.40				.60		3.30
Lovelocks	Humboldt				.01									.05															.05	0.11
Massacre Lakes	Desert		.20			.20	.20					.10	.25	.15					.05	.10						.30	.20		.29	1.95
McAfee's Ranch	do																													
Mill City	Humboldt														.20												.20	.20		0.60
Millett	Reese				.44	T.						T.		.05	.10									.05				.12	.32	1.08
Mina	Desert				.40																			*	.40			*	.60	1.40
North Fork	Humboldt		.10		T.		.20						T.	.80						T.			.12							1.22
Palmetto	Desert																													
Potts	Reese				.03							T.	T.	.01	.45				T.	T.					T.	T.		T.	.03	0.52
Quinn River Ranch	Humboldt																									T.	T.		.08	0.08
Reno	Truckee				.13							.05	T.	.01						T.	T.			.20				.14	.04	0.57
Rose Creek	Humboldt											.10		.35	.20	.18							.25		.15		.10			1.33
Secret Valley	do				.60							.40			1.10				.10				.20							2.40
Skelton	do				.22							.25	.05	.12					.01											0.65
Smith	West Walker	T.			.22							.02		T.						T.	.01			.13	26	.12		.45	.01	1.22
Soda Lake	Carson	T.			.15							.05		T.	T.				T.					.15					.07	0.42
Spooner's Ranch	Truckee	.40	.30		.40	.60					*	.90	.30	1.50										30	.40	.40	.30	1.10	.20	7.10
Sweetwater	East Walker																													
Tecoma	Humboldt		.20		.60									.60					T.				T.		.05					1.45
Tonopah	Desert			.03	.35							.08		T.	.02									.12	.08	T.	T.	.26	T.	0.94
Wabuska	Walker																							.42		.01		.10		0.53
Wells	Humboldt		.01		.02							.01		.77	.01				.01				.01	.01						0.85
Willow Point	Little Humboldt					T.							T.	.01					T.							T.			T.	0.01
Winnemucca	Humboldt						T.					.05	T.	.05	T.			T.	T.					T.		.03	.05	T.	.03	0.21

TABLE 3.—*Maximum and minimum temperatures at selected stations for February, 1911. District No. 10, Great Basin.*

Date.	Wyoming.				Weston, Idaho.		Utah.																			
	Border.		Evanston.				Corinne.		Deseret.		Government Creek.		Ibapah.		Marysvale.		Meadowville.		Modena.		Ogden.		Parowan.		Provo.		Salt Lake City	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	35	20	36	20	44	30	50	33	50	27	45	25	35	10	49	21	36	25	45	30	.....	.....	49	10	53	32	51	34
2	40	17	35	12	42	28	47	36	51	30	48	31	32	16	51	28	39	25	44	26	48	22	45	23	53	32	51	28
3	33	− 8	36	7	30	4	46	10	45	23	47	20	35	10	49	22	36	− 5	38	26	37	10	45	22	48	23	37	22
4	23	− 8	30	11	30	14	30	25	43	34	34	28	33	24	48	31	29	4	38	31	36	26	47	21	45	30	40	29
5	39	19	34	25	40	22	33	20	49	32	45	24	37	11	49	21	39	23	43	31	44	32	48	22	49	31	48	33
6	30	15	32	17	36	20	43	30	51	34	46	30	30	16	51	25	34	22	47	28	40	27	50	23	48	30	42	29
7	18	−11	25	− 5	30	− 2	32	6	48	17	34	13	28	4	39	21	24	4	38	22	33	16	52	24	50	19	34	23
8	11	−22	30	−10	28	− 6	32	7	43	15	56	15	35	5	41	10	23	− 2	41	18	35	16	53	25	41	18	37	22
9	12	−20	32	− 7	29	4	36	8	47	12	44	16	42	10	49	9	24	− 2	45	16	40	16	52	24	50	16	42	24
10	18	−19	40	0	35	0	36	10	53	14	49	23	40	13	53	15	26	− 2	48	20	46	21	50	24	55	20	52	26
11	36	− 1	40	13	44	13	52	9	54	32	54	32	35	20	51	28	42	7	46	27	52	30	51	5	53	30	56	42
12	38	− 5	34	20	43	20	46	21	39	26	46	14	32	9	41	27	40	20	38	23	39	27	50	6	48	28	42	28
13	32	− 1	29	5	34	13	30	25	44	23	40	23	29	12	45	15	39	10	35	23	38	23	51	7	42	26	42	26
14	24	−10	28	12	32	15	28	16	27	20	38	18	20	3	36	17	29	13	34	13	31	14	53	9	35	20	28	19
15	14	−16	20	− 7	23	− 5	27	5	28	− 2	27	− 1	15	− 3	24	2	20	0	22	− 6	31	6	55	12	31	− 5	28	15
16	5	−30	15	− 2	23	− 9	28	5	27	3	26	− 3	22	−10	36	12	20	8	24	5	30	6	41	7	31	3	28	15
17	3	−33	21	−23	25	−11	25	2	29	− 8	27	− 4	38	− 5	30	5	17	− 3	24	− 1	31	6	32	2	33	− 1	29	11
18	25	−14	25	− 7	30	0	33	11	31	− 5	32	3	33	2	32	4	25	3	25	− 5	33	18	32	3	34	5	30	16
19	25	− 1	20	10	37	4	41	17	34	− 8	28	8	16	− 1	32	12	29	9	27	7	36	18	32	2	32	7	34	17
20	22	− 5	16	2	30	11	32	20	32	− 5	26	7	13	− 4	30	5	22	8	28	0	35	19	33	3	35	10	32	21
21	25	−10	12	2	30	12	34	17	31	8	26	1	30	− 5	30	10	20	8	29	6	32	17	34	4	36	10	32	19
22	24	−20	25	−13	29	− 3	35	9	32	2	33	4	27	− 2	39	4	20	− 4	35	3	35	12	37	6	38	10	38	15
23	20	−14	15	2	35	8	37	20	41	12	37	16	21	15	40	16	28	5	41	11	41	29	45	6	47	20	42	26
24	22	− 9	30	0	37	8	44	20	42	21	35	20	28	13	47	20	26	6	38	19	41	26	60	20	47	26	40	31
25	30	− 5	32	10	35	16	36	22	31	20	30	15	20	5	33	11	26	12	37	18	32	11	51	11	33	20	32	16
26	25	15	19	9	30	13	30	12	32	16	25	− 1	12	− 9	28	12	22	12	29	16	31	4	43	9	30	5	26	15
27	15	−20	10	− 3	24	− 4	33	6	35	5	36	− 1	24	− 5	29	4	17	−10	29	16	34	1	35	8	39	− 4	30	13
28	24	−12	17	1	26	4	39	18	34	18	33	16	32	12	44	20	27	2	33	22	41	27	44	24	48	14	36	28
Mns.	33.9	−7.4	26.4	3.2	32.5	7.8	36.2	15.7	39.4	15.4	37.4	14.1	28.4	5.9	39.9	15.2	27.8	7.1	35.8	15.9	37.1[a]	17.8[a]	45.5	12.9	42.3	17.0	37.8	23.0

Date.	Burns, Oreg.		Nevada.																							
			Elko.		Ely.		Eureka.		Fallon.		Jean.		Lovelock.		Millett.		Mina.		Quinn River Ranch.		Reno.		Tecoma.		Tonopah.		Winnemucca.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	39	12	.....	.....	46	30	41	16	49	21	57	40	46	26	46	18	55	30	44	23	46	24	52	22	40	28	45	27
2	34	− 3	.....	.....	42	21	41	27	56	30	59	40	53	29	48	31	51	22	39	23	50	32	50	26	40	27	48	30
3	32	1	.....	.....	40	19	45	27	56	22	53	48	51	26	44	20	46	32	51	13	46	26	48	5	35	30	46	24
4	36	16	.....	.....	45	23	38	30	44	28	59	43	45	31	43	30	41	24	41	16	45	32	46	15	32	29	45	28
5	34	4	.....	.....	40	20	41	20	51	27	59	42	49	25	42	15	46	27	44	25	48	32	42	5	36	25	46	31
6	31	− 4	.....	.....	39	18	40	21	46	28	57	37	42	24	45	26	46	23	39	23	44	23	38	2	38	27	40	25
7	34	0	.....	.....	39	17	41	12	44	17	56	37	42	20	43	14	48	24	48	28	42	16	38	5	34	19	40	19
8	32	− 1	.....	.....	32	12	45	13	45	18	59	40	47	21	47	15	49	24	50	9	48	18	42	2	42	23	43	21
9	35	4	.....	.....	38	24	45	20	52	18	65	48	49	20	50	17	52	34	49	10	54	20	36	0	39	26	51	22
10	36	2	.....	.....	41	28	44	29	57	27	61	49	53	28	49	24	52	33	49	24	52	30	38	10	41	28	52	29
11	34	− 3	.....	.....	45	30	40	24	55	34	59	43	40	20	40	30	45	15	41	23	39	20	42	15	36	24	45	15
12	33	8	.....	.....	41	22	39	4	46	14	54	38	45	16	40	12	52	30	32	10	45	14	46	14	33	17	40	11
13	34	− 2	.....	.....	40	20	40	23	47	35	50	37	43	30	42	28	48	20	37	26	43	21	34	5	36	19	40	20
14	32	− 3	.....	.....	38	10	32	12	35	18	53	42	32	12	33	12	30	11	32	15	30	17	32	− 2	19	12	29	14
15	25	− 7	.....	.....	29	−10	27	4	33	14	53	38	34	12	27	3	35	12	40	5	34	13	32	− 5	19	8	33	11
16	30	− 1	.....	.....	26	−14	29	− 7	35	9	48	36	37	11	31	− 2	47	17	35	3	38	5	34	−10	34	5	33	4
17	24	0	.....	.....	29	−14	37	− 4	43	9	59	41	41	12	40	− 2	47	23	40	8	49	12	34	−10	35	10	37	9
18	28	10	.....	.....	30	− 4	29	6	40	20	57	42	40	24	37	13	47	26	43	14	43	18	34	5	33	20	36	19
19	33	13	.....	.....	25	10	32	12	40	23	52	40	39	23	34	15	47	20	39	25	35	25	36	8	27	16	36	24
20	34	7	.....	.....	23	1	31	4	40	16	50	40	40	21	34	10	45	13	45	13	38	20	32	− 6	28	16	35	16
21	36	8	.....	.....	22	− 2	33	2	43	12	53	44	45	22	35	5	51	15	41	11	46	14	28	− 7	32	15	38	14
22	34	− 2	.....	.....	34	− 2	39	8	52	14	60	43	50	26	49	10	49	28	36	20	51	17	34	5	41	22	43	20
23	30	− 1	.....	.....	36	16	39	20	46	26	55	46	58	25	41	24	36	25	34	17	35	23	34	8	40	23	35	21
24	34	19	.....	.....	32	14	38	14	39	23	58	46	45	24	44	19	35	25	41	20	35	18	30	1	27	19	41	18
25	35	− 1	.....	.....	28	17	28	14	36	25	49	43	41	22	34	20	33	12	35	20	32	15	34	7	23	10	32	16
26	34	7	.....	.....	24	− 5	28	2	35	12	50	45	34	14	30	3	37	24	34	10	31	7	32	−12	21	8	31	11
27	30	10	.....	.....	27	− 5	28	11	33	22	58	45	34	17	28	15	36	9	33	12	29	19	28	−13	23	16	30	11
28	28	8	.....	.....	34	14	32	14	37	17	57	53	38	23	39	6	41	29	43	10	33	16	34	0	28	15	42	19
Mns.	32.5	3.6	.....	.....	34.5	10.7	36.5	13.5	43.8	20.7	55.7	42.4	43.3	21.6	39.8	15.4	44.5	22.4	40.5	16.3	41.4	19.5	37.1	3.4	32.2	19.2	39.7	18.9

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT No. 11, CALIFORNIA.

Prof. ALEXANDER G. MCADIE, District Editor.

GENERAL SUMMARY.

February, 1911, was in general a month of unsettled weather, frequent rain and unusually low temperatures. It was rainier than February, 1910, but still the rainfall was a little below the normal as to amount. However, the number of rainy days was normal. The month followed a period of abnormally heavy precipitation, the last two decades of January being periods of almost constant rain. With one or two exceptions, there were no warm rains during the month, and the great accumulation of snow in the mountains at elevations above 5,000 feet was not materially reduced. Snow on the lower levels was, however, carried off with resulting floods in certain river sections. As a whole, however, the losses were comparatively small, and while conditions were at times threatening and caused some anxiety, the weather permitted the flood crests to travel to the Great Basin and the sea without reenforcement at critical times.

The most noticeable feature of the month was the low mean temperature, due rather to the absence of warm days than to the prevalence of any particular cold period. The nights also were not as cold as would have been the case had the skies been clear and the general conditions drier.

The temperature averaged nearly 4° below the normal. In fact with one exception, that of the year 1903, the present month was the coldest February known since records have been kept. The month was 10° colder than the warmest February.

There were no specially noteworthy features; there were fewer frosts than usual, and during the intervals of fair weather morning temperatures were not as low as might have been anticipated. The most marked storm occurred during the last week and more particularly during the last two days. As will be mentioned in more detail under the section on snow, the somewhat unusual occurrence of snow in the coast cities was reported. On February 26, in the afternoon, there were snow flurries in San Francisco, and a moderate depth accumulated on the hills and mountains in the vicinity. At the same time thunder was reported. The disturbance itself appeared to move slowly from southern California northward. Thunderstorms were reported first in the south and on succeeding days in the central and northern counties. The month ended with stormy, unsettled weather and a rain area covering all of California except the extreme north.

There was less tule fog than usual in the valleys, the morning hours being cloudy but without fog.

TEMPERATURE.

Comparing the present month with previous years, we find the mean temperature to have been below the normal. The following table gives the means and departures for each February from 1897 to 1911, inclusive:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
	°F.	°F.		°F.	°F.
1897	48.0	+0.5	1905	50.8	+3.3
1898	49.4	+1.9	1906	52.0	+4.5
1899	48.5	+1.0	1907	53.3	+5.8
1900	49.9	+2.4	1908	46.8	−0.7
1901	47.7	+0.2	1909	46.6	−0.9
1902	50.3	+2.8	1910	46.0	−1.5
1903	43.7	−3.8	1911	43.7	−3.8
1904	54.5	+7.0			

The highest temperature recorded was 89° on the 22d at San Jacinto, and the lowest 30° below zero on the 16th at Sierraville. The highest mean temperature was 56.1° at Needles and the lowest 18.2° at Sierraville and Madeline.

PRECIPITATION.

The average precipitation for the State was nearly normal. The following table gives the average and departure from the normal for each February from 1897 to 1911, inclusive:

Year.	Amount.	Departure.	Year.	Amount.	Departure.
	Inches.	Inches.		Inches.	Inches.
1897	5.85	+2.26	1905	4.24	+0.65
1898	2.95	−0.64	1906	4.88	+1.29
1899	0.45	−3.14	1907	4.14	+0.55
1900	0.94	−2.65	1908	3.99	+0.40
1901	6.03	+2.44	1909	8.00	+4.41
1902	8.14	+4.55	1910	2.43	−1.16
1903	1.76	−1.83	1911	3.33	−0.26
1904	7.91	+4.32			

The greatest monthly precipitation was at Tamarack, 13.60 inches, and none occurred at Bagdad. The greatest 24-hour rainfall was 3.80 inches at Nimshew. There were 19 stations at which over 2 inches fell in 24 hours.

The month was one of moderate snowfall. During the first decade the snowfall exceeded the normal, and by adding to the phenomenally heavy fall of January resulted in a deep and extensive snow cover. Not for many years has the snow been so deep in the mountains. Fortunately periods of fair weather after the middle of the month prevented a further increase in the run-off at critical times, owing to which there was no great catastrophe, which probably would have been the case had warm rains occurred during the period mentioned. At high levels the depth of the snow covering decreased at the rate of a foot a week. At the close of the month, during a storm of wide area, snow fell in the coast counties and also in some of the cities south of the Tehachapi.

On February 26 light snow fell in San Francisco, and the hills and mountains in the vicinity were covered.

Conditions during February, 1911, were entirely different from those of February, 1910, with regard to snowfall.

At the close of the month there was an abundant supply of water in sight. The accumulated depth of snow on the ground at Summit was 215 inches, while at the same date last year there were but 72 inches, and the year before that about 160 inches. The mean depth of snow on the ground at this level, based upon records covering many years, is 80 inches. It will therefore be seen that there is nearly three times as much snow on the ground as in a normal season.

SUNSHINE.

The following table gives the hours of sunshine and percentages of possible:

Stations.	Hours.	Per cent of possible.	Stations.	Hours.	Per cent of possible.
Eureka	158	53	San Luis Obispo	164	53
Red Bluff	188	63	Los Angeles	307	67
Sacramento	197	66	San Diego	193	63
San Francisco	179	59	Mount Tamalpais	156	51
San Jose	183	57	Alturas	.....	60
Fresno	223	74	Santa Cruz	.....	72

EARTHQUAKES.

Earthquakes were recorded on the Wiechert seismographs at Santa Clara College, and reported by the Rev. Jerome S. Ricard, S. J., as follows: February 7, 5:19:08 a. m. to 5:21:42; origin, 103 kilometers northwest by west. February 18, 11:30:18 a. m. to 11:55; origin, far away on ocean bottom. Many small tremors during the Macedonia quake, February 19. Los Gatos, February 7, 5:19 a. m., Mr. Irving H. Snyder reports a light shock, duration five seconds, recorded by clock; but this is only sensitive to more pronounced vibrations, so that the total duration was probably eight or nine seconds. A lesser shock was thought by some to have occurred about 3 a. m. same date.

Other reports of earthquakes were: Los Alamos, 2d; Hollister, 7th; Boulder Creek, 7th; Long Valley, 12th; Campbell, 7th; Point Loma, 2d, 9th, 13th, 15th, 19th, 22d, 25th, 27th, and 28th.

NOTES ON THE RIVERS OF THE SACRAMENTO AND SAN JOAQUIN WATERSHEDS DURING FEBRUARY, 1911.

By N. R. TAYLOR, Local Forecaster.

Sacramento watershed.—The Sacramento River above Monroeville averaged over 1 foot below the usual February stage, and in many of the upper reaches was the lowest on record for the season. This was especially so during the last decade.

From Colusa to the mouth of the river the Sacramento was above the average, generally with menacing stages during the first few days of the month.

The American, Feather, and Yuba Rivers were well up to the average, with some damaging freshets in many of the smaller forks.

San Joaquin watershed.—All streams in this watershed averaged above the February normal, especially the San Joaquin below the mouth of the Stanislaus, with a stage at San Joaquin Bridge on the 1st of 22.5 feet, which is the highest ever before recorded in the history of the river. At the close of January heavy and damaging floods were in progress along the San Joaquin between Mendota and Stockton Channel, along Mormon Slough, and over a large area of country contiguous to the junction of the Cosumnes and Mokelumne Rivers, and it has been estimated that over 300,000 acres were inundated in the sections mentioned above between January 30 and February 4 and that damage aggregating $300,000 resulted.

Warnings issued by the Weather Bureau were disseminated throughout all sections flooded well in advance of the floods and resulted in the estimated saving of over $200,000 worth of property.

NOTE UPON THE WEATHER AT REDLANDS, CAL.

By Mr. WM. STOWE DEVOL.

A new temperature record was established for February, the mean for that month in 1911 being the lowest since the station was opened. The mean was 47.8°, or 5.8° below the normal for February, the next lowest monthly mean being 48.1°, in 1903.

In 1903 there was a much greater range of temperature and the low mean was due to a large number of cold nights. During the present month the temperature was more uniform and there were fewer cold nights. Only once during the month did the temperature fall as low as 32°. There was, howeyer, not a single day when the mean temperature exceeded 54°.

The total precipitation for the month, 3.88 inches, was more than 50 per cent in excess of the normal, and, with one exception, was the greatest recorded in 13 years. Rain fell on 13 days and snow on two occasions. The fall of snow on the 15th continued for more than an hour, and remained on the ground thereafter about half an hour. On the 27th light snow fell, but melted immediately on reaching the ground.

There were many light but no killing frosts during the month. The mean relative humidity was not excessive. The dew point at the hour of reading the instruments in the afternoon averaged 23° lower than the observed temperature. The least difference between the observed temperature and the dew point was 2° and the greatest 51°.

WORK OF THE WEATHER BUREAU IN PROTECTING FRUIT; ESPECIALLY FROST PROTECTION.

By ALEXANDER G. MCADIE.

The following paper was read before the seventh annual meeting of the Western Fruit Jobbers' Association, held at Sacramento, Cal., February 15 to 18, 1911. (The paper was illustrated, and touched upon various lines of Weather Bureau work, but only that portion bearing upon frost protection is here given.)

California in 1910 produced more gold than any other State or Territory in the Union. California in the same year produced 75,000,000 barrels of crude oil, or nearly half the amount produced in the United States. But both items are of less interest to us who are gathered here than this other fact, that California produced in 1910 a fruit crop worth approximately $50,000,000, of which deciduous fruits were worth about $30,000,000 and citrus fruits about $20,000,000; these values being based upon data in the annual number of the California Fruit Grower. Now, the gold and the oil output may or may not increase during the coming years, but the fruit crop is in large measure under human control, and there is every likelihood of a rapid increase in its value.

The crop of 1910 was not raised without labor, anxiety, and loss. The loss was doubtless more than it should have been. Whoever contributes to reducing the loss performs a work of value, we hold, not only to the fruit grower but to all mankind.

In past years there were certain losses due to what may be called natural causes, which were considered by fruit growers and fruit consumers as beyond the power of the grower to prevent. But of late, largely through the directive knowledge of the experts of the Department of Agriculture and the ready acceptance of their work by the growers and shippers, losses have been minimized or greatly decreased.

* * * * *

Passing over problems of loss due to high winds, or injury caused by drought on the one hand or excessive moisture on the other, also unfavorable weather at critical times, such, for example, as the warm spells during September in the apple belt of California, and all the losses connected with low temperatures experienced by packed fruit while in transit, we come to one source of loss which in its way perhaps has caused greater damage than any other one condition, namely, frost.

It is a constantly recurring source of danger. It is quick in action, for the work of a year with its hoped-for profits may be made valueless in a single night by frost. It is a complicated problem, calling for a knowledge not only of the plant and its condition but a somewhat detailed knowledge of the physics of the lower air and especially the method by which heat is gained, retained, or lost by plant surfaces. In many respects our knowledge of these conditions is quite imperfect and we are working in the dark. Instruments of sufficient sensitiveness are not available, or at least have not been used, to get a complete and continuous record of the changes going on near the plant surface during cold winter nights and frosty spring mornings. Nor are the problems connected with the condensation of the water vapor and the formation of the frost crystals altogether simple. Indeed, the formation of what is called frost, i. e., the crystals of ice, is really preventive, heat being given off in the solidification. Furthermore, at a later period, when, under the influence of the heat of sunrise, the frost crystals melt, heat is required, and to some degree this prevents a too rapid warming up; and still further, when the frost has changed to water, there is still to be considered the latent heat of vaporization. This latter amount is, in round numbers, about 600 calories and the former quantity, or the latent heat of fusion of ice, about 80 calories.

In its efforts to devise adequate methods of protection against frost the Weather Bureau has for a period now extending over 15 years studied the problem from two viewpoints, and it can be said that a high degree of success has resulted. The first phase of the problem naturally would be the giving of accurate warnings of impending low temperature. This is not an easy matter, and at the beginning of the frost campaign the forecasts were somewhat uncertain. Persistent effort and constant vigilance have brought their reward, and I know it will please this body of practical men to hear that during the winter of 1909–10 in California there was not a single forecast of injurious frost that was not fully verified, and, what is still more satisfactory, there was not a single frost injurious to fruit occurring during that period that was not forecast from 12 to 36 hours in advance. In other parts of the United States this problem of forecasting frost is being rapidly developed and it seems likely that an equally high efficiency will be attained.

The second line of action in connection with the protection of fruit from frost was to develop adequate ways and means for controlling the temperature. Taking the problem broadly, two plans of action presented themselves: First, the plant itself was to be so selected, bred, and developed as to offer as far as possible the needed resistance to the low temperature; or, what is practically the same thing, to render the plant dormant and not sensitive during the cold period. The other plan of action was to fight the cold and minimize exposure thereto by producing heat artificially during the cold period.

Under the first plan there has been some work done in producing a resistant stock; but in California, chiefly owing to the fact that extreme low temperatures seldom occur and are of short duration, attention has been given mostly to the second method—i. e., preventing too great a fall in temperature and a too rapid rise in temperature after the plant tissue has been chilled. There are a number of ways in which this can be done, but the simplest method is to add heat to the lower air at the critical time to keep the plant and fruit warm. This is best done by burning fuel in various ways, either in a number of small fires, such as coal baskets, oil pots, orchard heaters, or small open fires. Within the last three years convenient forms of orchard heaters have been devised, some burning coal and others burning oil. These are now in widespread use and have been successfully used in raising the temperature 5° or even more at critical times and have demonstrated their worth beyond future question. They have many advantages, and if the expense is regarded in the light of an insurance premium the results have been most satisfactory from a financial standpoint.

Whether the actual use of fuel and combustion methods are the most economical of possible methods is an open question. It should have been stated that large fires are neither economical nor efficient, and the heat energy is largely misapplied and practically wasted so far as the orchardist is concerned. With smaller fires, well distributed, there is less of this heating up of all out-of-doors, as it has been called, and a more economical use of the fuel. Indeed, competition between the various makes of orchard heaters now on the market is keen in this matter of getting the best combustion and the highest efficiency.

There are, however, other ways of obtaining heat, or rather utilizing natural conditions, and possibly in these will be found the ultimate frost protector of highest efficiency and lowest initial cost, as well as cost of maintenance. If by any means we can conserve the heat of the afternoon hours, expending it gradually during the night hours and not at an extravagant rate, as is the case normally, we will be using the cheapest and cleanest of all fuels. One way to do this is to use a cover, trapping the earth heat and permitting a slow escape between the hours of midnight and sunrise. The plants themselves may be covered, which is an old, old method of protecting against frost; but the labor item and the time required militate against this practice on a large scale. Long rolls of prepared cloth, paper, or burlap may be spread over the ground in the orchard about 3 o'clock in the afternoon. The ground under cover thus remains at a comparatively high temperature. About midnight or some time thereafter the material may be rolled up and easily removed. It is also advisable that sand or loose earth be dusted over the cover or spread to a light depth. This is easily displaced in the process of rolling up the lengths of cover by simply shaking these. This process secures a large amount of earth heat, i. e., second-hand sun heat, and sets it free at a time when the temperature is falling. In most cases the supply of heat will be sufficient to prevent critical temperatures before sunrise. It should also be pointed out that a small amount of dust in the lower air serves to prevent the usual rapid rate of loss by radiation. In fact, a certain amount of heat is reradiated. It is also possible, although as yet experimental evidence does not fully demonstrate this, that slow convectional currents prevail in the lower air and the heat is thus more uniformly distributed.

Another way is to employ some substance having, like water, a high specific heat and allow it to give up this heat slowly. In California experiments have been made with heated water, and there is no question about the efficiency and cleanliness of the method. The expense has been the chief obstacle to its widespread introduction.

Recent work by Weather Bureau officials in connection with the cranberry bogs of Wisconsin has brought out the fact that the condition of the soil with regard to what may be called cumulative low temperatures plays an important part. The ground being cold, frosts occur in the marshes in May and early in June when the temperature of the air would not of itself cause frost. By cleaning, draining, and sanding damage by frost has been prevented. There was found to be a close relation between daily maximum air temperature and soil temperature and also a close relation between soil temperature and the ensuing minimum. It must, however, be remarked that similar climatic conditions do not prevail in California, and other methods are more appropriate. If we use some good absorber of heat and can in any way conserve this heat, we have a longer period of comparative warmth and also can heat the lower air by conduction or convection. A good radiator loses heat rapidly on quiet, clear nights, and the radiant heat does not warm the fruit.

Finally, there is the method of mixing or stirring the air, which has not yet been utilized on a commercial scale. Frost is largely a problem of air drainage. As a result of many experiments it is found that where there is a mixing of the air strata or where there is good ventilation there is less frost than where the air is quiet and stagnant. Every one is familiar with the fact that frost does not occur on windy nights, which in a measure is the result of dryness, but also partly due to the fact that the layers of air are thoroughly mixed and whatever heat may exist at a moderate height above the ground is not confined to that height.

Finally, the most successful frost protection may be a combination of the various devices now in use and others based upon the principles mentioned above.

STRAW AS PROTECTION AGAINST FROST.

By ALEXANDER G. MCADIE.

The writer was recently appealed to for an opinion as to whether a covering of straw would provide an effective protection for young oats under it against injury by frost. The answer was that straw spread over the ground and used as a cover would certainly protect. It appeared later that there was another possible source of injury in the discoloration of the oats, which were found to be so injured under the straw mulch. Moreover, it was found that the straw had not been freshly spread, but remained

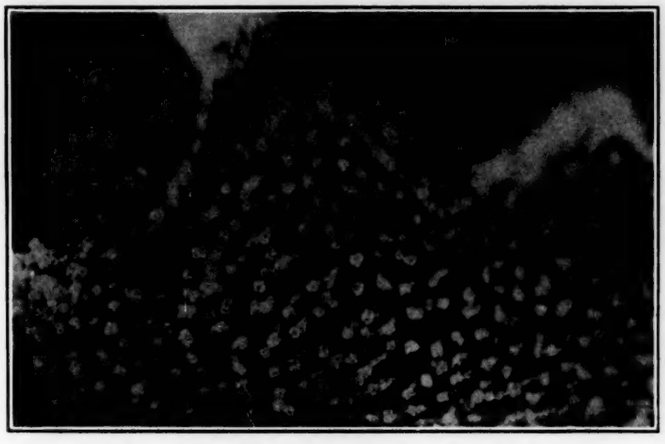
in place for quite a time. The problem therefore becomes a different one, for we are no longer dealing with the original soil and its capacity to absorb heat, accumulate the same and also radiate it, but with a new condition and practically a new top soil. Straw is an excellent radiator and would cool rapidly at night. Moreover, the soil beneath is screened from full insolation and acquires only a partial quantity of the heat it would receive if uncovered.

It was pointed out that to get the best protective effect the straw should be spread daily, preferably about 4 p. m. or a little before sunset, and removed about sunrise or just before.

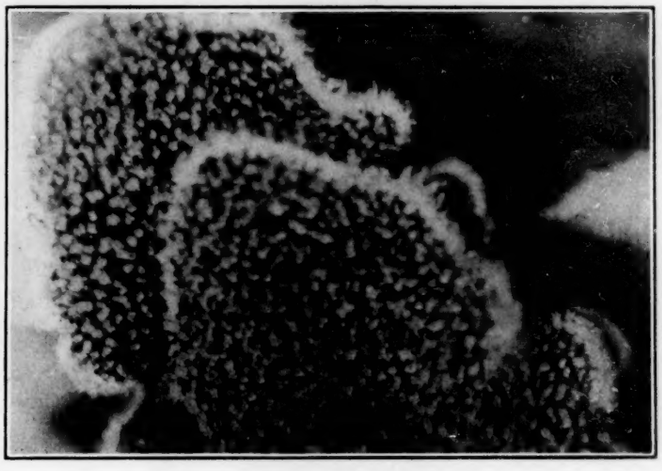
It was also pointed out that the copious deposit of frost upon the straw, claimed by one party in the controversy to prove the existence of low temperature, did not necessarily measure the degree of fall in temperature. In fact, a heavy deposit was evidence rather of much water vapor present near the ground or on the surface of the straw. Estimating temperature fall by the amount of frost formed may lead to error. A rotten board, a manure heap, or, as in this case, old straw more or less damp absorbs moisture and holds it. If the substance is a good radiator, there is a quick cooling and any moisture near by will quickly condense on the chilled surface. The moisture may come from the ground or from the substance or may be in the form of vapor in the lowest air layer. Materials having a lower moisture content, although in proximity and similarly exposed, will show less frost; i. e., the condensation will be nothing like as heavy on a gravel walk, for instance, as on an old board lying across the walk.

There is needed in frost experimentation, in order to properly explain such questions as the one proposed, systematic records of temperature by sensitive resistance thermometers at different heights and on different surfaces. Also there is needed, just as much as the temperatures, records of the actual amounts of water vapor present, and these possibly could be obtained by the so-called saturation deficit recorders.

In the accompanying photographs, made by Mr. O. H. Packer, who has cheerfully given his time and assistance in the frost experiments carried on at San Francisco, it can be seen that the frost crystals apparently form only on the upper or outermost blades of grass. Underneath the top grass frost does not form. It is also apparent that frost building appears to be more energetic at the edge of a leaf than elsewhere. Tips of grass blades seem to show both dew and frost in much greater quantity than elsewhere.

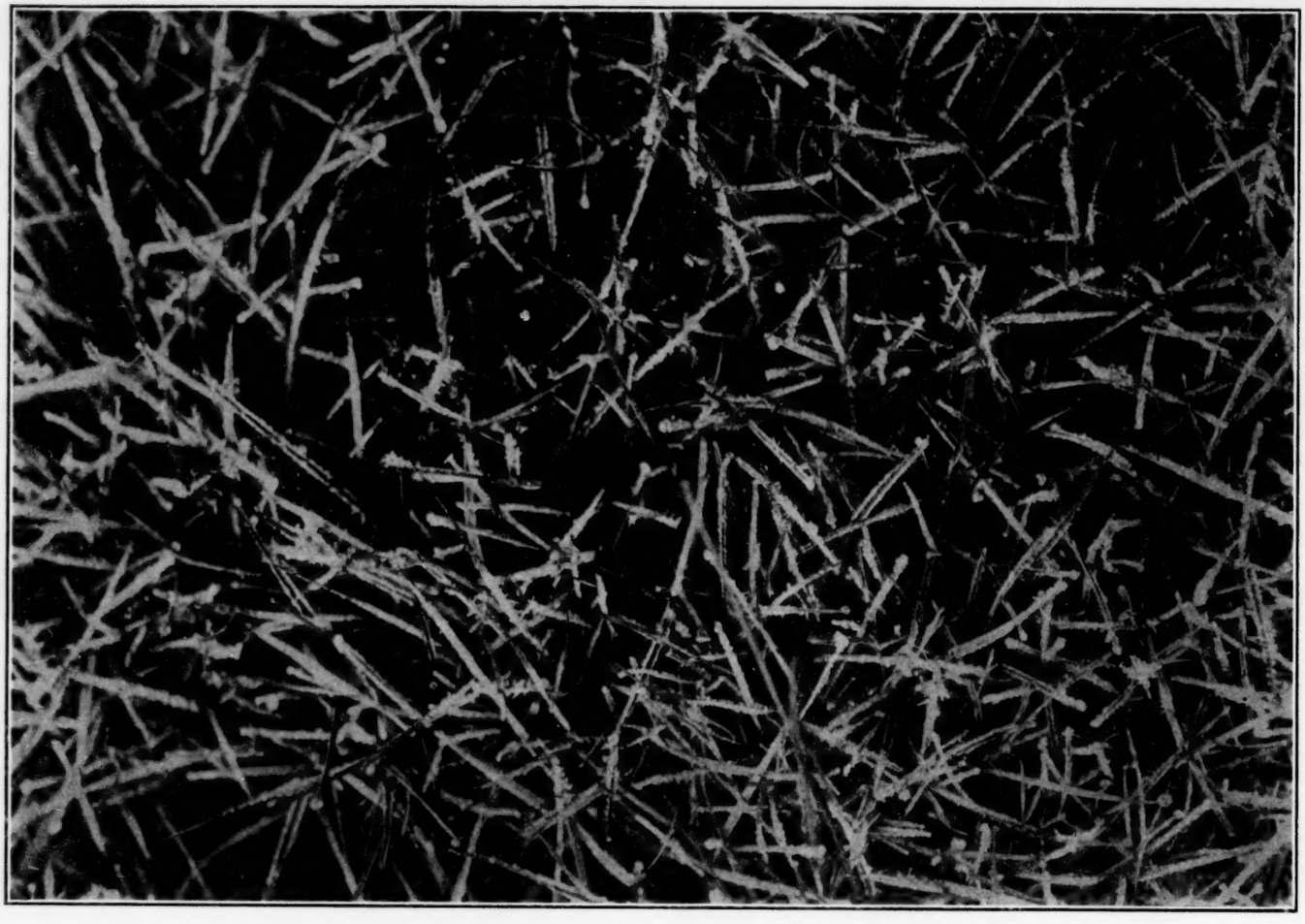


FROST ON LEAVES.



DISTRIBUTION OF FROST CRYSTALS ON LEAF.

(Photographs by O. H. Packer.)



FROST ON GRASS AT SAN FRANCISCO, CAL.
(Photograph by O. H. Packer.)

TABLE 1.—*Climatological data for February, 1911. District No. 11, California.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon.																				
Klamath Agency	Klamath	4,169	3	22.0	.....	41	11	−12	15†	48	0.80	.....	0.45	8.0	3	16	8	4	s.	Edson C. Watson.
Klamath Falls	do	4,100	22	22.5	−11.5	39	17†	− 6	15†	29	0.55	− 1.05	0.17	8.2	4	17	4	7	nw.	W. H. Heileman.
Lakeview	Lake	4,825	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. L. Wharton, jr.
Merrill	Klamath	4,070	5	24.2	.....	47	9	− 9	16	38	0.56	.....	0.20	5.6	4	16	4	8	.....	Mrs. Agnes Ritchson.
Yonna	do	4,146	4	21.6	.....	41	17	−15	16	48	0.50	.....	0.20	4.2	4	16	7	5	s.	Jacob Rueck.
California.																				
Alameda	Alameda	.....	2	48.2	.....	64	24	29	15	....	1.60	.....	0.65	0.0	9	13	10	5	nw.	Chas. E. Sears.
Alturas	Modoc	4,460	7	23.0	.....	47	17	−16	16	50	0.59	.....	0.27	8.0	6	7	14	7	nw.	C. B. Towle.
Angiola	Tulare	208	11	49.5	− 0.2	60	10†	34	28	26	1.50	+ 0.64	1.04	0.0	3	.....	.....	.....	.....	Santa Fe Co.
Antioch	Contra Costa	102	32	52.0	+ 1.2	71	7	30	14	....	1.23	− 0.37	0.38	0.0	5	12	0	16	.....	Southern Pacific Co.
Aptos	Santa Cruz	102	26	47.6	− 1.9	61	2†	28	15†	....	4.69	+ 1.07	1.82	0.0	10	10	5	13	nw.	Do.
Arrowhead Springs	San Bernardino	2,000	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Auburn	Placer	1,360	40	42.5	− 5.6	61	19	26	15†	34	2.93	− 1.92	1.12	2.0	8	15	0	13	se.	Southern Pacific Co.
Avalon	Los Angeles	.....	1	53.4	.....	70	22	41	17	24	2.71	.....	0.99	0.0	8	15	10	3	.....	T. S. Manning.
Azusa	do	540	9	50.0	.....	76	9†	27	17	41	2.77	− 0.18	1.19	0.0	7	20	5	3	sw.	A. P. Griffith.
Bagdad	San Bernardino	784	8	54.8	.....	69	23	38	15	28	0.0	.....	0.0	0.0	0	.....	.....	.....	.....	Santa Fe Co.
Bakersfield	Kern	404	22	49.2	− 3.2	67	5	31	17†	25	1.92	+ 1.41	1.01	0.0	4	.....	.....	.....	.....	Do.
Barstow	San Bernardino	2,105	8	49.2	.....	75	23	24	17	48	0.77	+ 0.34	0.22	T.	4	16	8	4	w.	E. L. White.
Berkeley	Alameda	317	24	46.2	− 3.5	58	2†	32	16	20	4.05	+ 0.40	0.76	T.	11	15	6	7	.....	State University.
Biggs	Butte	98	12	45.6	− 1.0	56	2†	29	16	....	2.06	− 1.38	0.55	T.	6	16	1	11	s.	Southern Pacific Co.
Bishop	Inyo	4,450	16	35.4	− 7.4	61	18	10	19	40	1.66	+ 1.10	1.23	18.0	3	20	2	6	.....	W. A. Chalfant.
Bishop Creek	do	8,500	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Paul E. Lodge.
Blocksburg	Humboldt	1,700	5	40.3	.....	57	23	22	15	28	4.38	.....	1.46	9.0	14	8	4	16	se.	Victor Hope.
Blue Canon	Placer	4,695	12	31.8	− 6.0	50	7†	11	14	24	7.40	− 5.16	2.90	62.5	10	18	2	8	sw.	Southern Pacific Co.
Blythe	Riverside	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ray W. Ward.
Branscomb	Mendocino	2,000	11	40.4	.....	62	19	20	15	34	6.85	−10.74	3.50	6.0	9	11	5	12	w.	A. J. Haun.
Brawley	Imperial	105	2	54.4	.....	78	5	30	17	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. D. Witter.
Brush Creek	Butte	2,140	7	.....	.....	.....	.....	.....	.....	.....	6.83	.....	2.23	5.0	5	20	0	8	s.	Cal. Gas & Electric Co.
Burney	Shasta	3,300	1	29.8	.....	52	3†	− 2	15	46	3.22	.....	1.16	12.2	7	12	10	6	ne.	Mrs. M. D. Chambers.
Calexico	Imperial	0	6	54.4	.....	72	10	32	17	33	0.97	.....	0.62	0.0	2	20	5	3	nw.	J. E. Peck.
Caliente	Kern	1,290	35	48.8	− 3.0	65	4	32	15†	....	1.76	0.0	0.85	T.	4	15	1	12	.....	Southern Pacific Co.
Calistoga	Napa	363	39	45.5	− 4.6	70	10†	24	14†	....	3.46	− 1.50	1.33	0.0	6	13	0	15	.....	Do.
Campbell	Santa Clara	217	14	45.4	− 4.9	63	18†	27	16	39	1.97	− 0.59	0.60	0.0	9	16	2	10	nw.	F. M. Righter.
Camptonville (near)	Yuba	3,500	4	40.2	.....	66	17	16	15	46	9.37	.....	2.49	23.0	11	11	5	12	.....	Cal. Gas & Electric Co.
Cedarville	Modoc	4,675	17	24.6	−10.3	49	1	0	16	34	1.14	− 0.19	0.25	13.0	9	13	15	0	nw.	T. H. Johnstone.
Chico	Butte	189	41	45.8	− 4.5	65	18	23	15	38	2.04	− 1.28	0.46	T.	9	15	2	11	n.	G. H. Stephenson.
China Flat	Humboldt	600	2	44.6	.....	63	25	20	27	38	3.84	.....	0.57	3.5	11	11	8	9	sw.	O. I. Westerburg.
Chino	San Bernardino	714	19	52.0	− 1.5	68	22	31	17	....	3.38	+ 1.70	1.19	0.0	8	11	0	17	e.	Southern Pacific Co.
Cisco	Placer	5,939	40	28.5	− 2.4	40	5	10	26	....	4.70	− 3.92	0.80	47.0	9	16	0	12	w.	Do.
Claremont	Los Angeles	1,200	19	48.0	− 3.6	72	23	32	16†	36	4.78	+ 2.92	1.22	0.5	16	12	9	7	e.	F. P. Brackett.
Cloverdale	Sonoma	340	9	46.2	.....	68	18	29	14†	32	5.09	.....	1.63	T.	10	16	5	7	w.	John O. Ogle.
Colfax	Placer	2,421	40	39.2	− 6.7	77	19	19	26	49	4.44	− 2.18	0.88	7.0	11	15	1	12	n.	Southern Pacific Co.
Colusa	Colusa	60	8	.....	.....	.....	.....	.....	.....	.....	0.41	− 1.52	0.39	T.	2	25	3	0	.....	C. D. McComish.
Corning	Tehama	277	25	48.6	− 0.2	56	1†	32	14†	....	2.60	− 0.42	0.82	0.0	7	8	0	20	n.	Southern Pacific Co.
Cuyamaca	San Diego	4,677	12	36.1	0.0	54	23	13	16	25	8.26	+ 2.29	2.74	15.0	13	10	4	14	w.	L. L. Macquarie.
Daunt	Tulare	4,000	4	36.4	.....	63	10	13	16	34	4.29	.....	1.33	T.	14	9	8	11	.....	D. L. Wishon.
Davisville	Yolo	51	39	44.0	− 7.6	64	18	24	25	38	1.79	− 0.59	0.48	0.0	10	6	14	8	.....	S. H. Beckett.
Deer Creek	Nevada	3,700	4	32.4	.....	54	17†	6	16	39	7.72	.....	2.03	33.0	11	10	3	15	s.	Cal. Gas & Electric Co.
Del Monte	Monterey	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. R. Warner.
Delta	Shasta	1,138	26	42.9	− 2.6	61	3†	24	15	30	7.30	+ 1.35	1.90	0.0	8	20	0	8	n.	Southern Pacific Co.
Denair	Stanislaus	126	11	46.8	− 2.8	63	2†	27	17	33	0.57	− 1.12	0.17	0.0	7	16	10	2	sw.	Santa Fe Co.
Dobbins	Yuba	1,650	7	46.0	.....	66	18	28	14†	30	4.35	.....	1.39	0.0	13	9	10	9	.....	Cal. Gas & Electric Co.
Dudleys	Mariposa	3,000	2	34.7	.....	58	9	4	12	37	4.13	.....	1.30	22.0	12	10	5	13	n.	W. H. Dudley.
Dunnigan	Yolo	65	34	49.8	+ 0.6	60	3†	35	14†	....	1.60	− 0.75	0.52	0.0	7	17	3	8	n.	Southern Pacific Co.
Dunsmuir	Siskiyou	2,285	22	35.8	− 5.0	56	22	15	15	....	6.47	+ 0.65	1.73	14.5	10	16	0	12	n.	Do.
Durham	Butte	160	16	45.8	− 4.4	65	22	23	26	38	2.05	− 0.96	0.68	0.0	9	14	5	9	n.	R. W. Durham.
El Cajon	San Diego	482	12	50.4	− 2.4	75	22	28	17	45	4.00	− 1.34	1.26	0.0	13	14	5	9	sw.	H. H. Kessler.
Electra	Amador	725	7	46.6	.....	66	16	28	15†	38	5.00	.....	1.07	T.	12	15	5	8	s.	Cal. Gas & Electric Co.
Elsinore	Riverside	1,234	16	46.8	− 6.2	72	22	24	17	44	3.24	+ 1.48	1.75	0.0	9	11	10	7	w.	A. F. Schult.
Emigrant Gap	Placer	5,230	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Escondido	San Diego	657	17	49.7	− 2.3	74	22	26	17	44	4.26	+ 1.88	1.19	0.0	11	2	23	3	w.	A. R. Moon.
Eureka	Humboldt	64	25	43.4	− 3.4	57	1	30	27	23	3.75	− 2.97	1.74	0.1	13	11	7	10	n.	U. S. Weather Bureau.
Farmington	San Joaquin	111	32	46.7	− 3.4	61	2†	28	16	....	2.48	+ 0.05	0.60	0.0	10	15	7	6	nw.	Southern Pacific Co.
Folsom	Sacramento	252	39	46.9	− 4.2	68	19	28	15	34	2.76	− 0.62	0.74	T.	11	18	1	9	.....	F. O. Hutton.
Fordyce Dam	Nevada	6,500	16	20.8	.....	35	4	−12	16	34	7.38	− 2.68	1.80	79.0	10	9	10	9	sw.	E. E. Roening.
Fouts Springs	Colusa	1,650	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. J. Burgi.
Fresno	Fresno	293	24	47.4	− 1.8	69	2	29	15	28	1.14	− 0.03	0.50	T.	7	17	6	5	nw.	U. S. Weather Bureau.
Fruto	Glenn	624	22	43.4	− 6.3	62	18	28	14†	....	2.50	− 0.13	0.80	T.	6	16	0	12	n.	Southern Pacific Co.
Galt	Sacramento	49	33	47.8	− 2.5	65	20†	31	17	....	1.96	− 0.44	0.48	0.0	9	11	6	11	s.	Do.
Georgetown	El Dorado	2,650	38	39.0	− 9.4	58	18	19	15†	29	6.96	− 1.04	1.95	16.3	13	14	4	10	.....	H. D. Jerrett.
Gilroy	Santa Clara	193	37	45.7	− 3.6	70	2†	28	15†	....	2.19	− 0.57	0.55	0.0	9	17	0	11	n.	Southern Pacific Co.
Gilta	Siskiyou	3,300	1	33.8	.....	49	19	17	15	25	4.37	.....	0.89	45.0	11	11	10	7	E.	A. Dannenbrink.
Glennville	Kern	5,500	1	.....	.....	.....	.....	.....	.....	.....	6.85	.....	2.95	22.0	4	.....	.....	.....	.....	C. H. Likely.
Gold Run	Placer	3,222	12	41.0	− 3.0	60	18†	18	26	40	7.10	− 2.36	1.85	18.0	11	15	3	10	n.	Southern Pacific Co.
Gonzales	Monterey	127	12	55.2	+ 7.3	80	4	32	16†	....	2.68	+ 0.65	0.52	0.0	9	12	5	11	se.	Do.
Grass Valley	Nevada	2,690	39	37.7	.....	58	19	16	15	30	5.93	− 0.92	1.64	7.5	11	10	4	14	se.	F. R. Hull.
Greenville	Plumas	3,600	17	29.6	− 7.1	51	23	− 8	16	45	5.12	− 0.83	3.74	23.0	6	8	9	11	sw.	C. H. Higbie.
Groveland	Tuolumne	2,828	2	37.4	.....	58	8	16	16	30	4.24	.....	1.54	10.0	10	9	17	2	.....	H. S. Richardson.
Guinda	Yolo	350	13	42.1	− 8.0	58	9	22	16	....	2.31	− 1.20	0.60	T.	7	14	10	4	n.	Southern Pacific Co.
Hanford	Kings	249	11	40.6	− 8.6	59	4	30	15†	15	1.46	− 0.04	1.02	0.0	5	13	5	10	.....	Santa Fe Co.
Healdsburg	Sonoma	110	18	47.0	− 1.1	72	22	28	15	39	4.14	− 0.77	1.14	T.	8	.....	.....	.....	.....	Fred J. Kinley.
Hearst	Mendocino	1,800	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. D. Ellmaker.
Heber	Imperial	−20	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. J. Booth.
Hetch Hetchy	Tuolumne	3,665	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. K. Brown.
Hollister	San Benito	284	37	46.4	− 5.5	66	2†	25	16	35	1.65	− 0.06	0.48	0.0	10	10	9	9	w.	J. N. Thompson.
Hornbrook	Siskiyou	2,154	23	37.6	− 2.1	48	27	18	16	....	T.	− 1.72	T.	T.	0	14	3	11	s.	Southern Pacific Co.
Hot Springs	Tulare	3,300	4	38.0	.....	59	4†	21	15†	28	3.41	.....	1.55	2.0	11	15	0	13	.....	U. S. Forest Service.
Hullville (near)	Lake	2,250	4	38.8	.....	62	18	14	15	34	4.80	.....	0.95	10.6	14	3	13	12	sw.	T. H. Betterton.
Idyllwild	Riverside	5,250	10	33.0	− 9.4	57	22	8	16	30	6.26	+ 1.22	2.18	19.0	11	11	10	7	sw.	Earl Powers.
Independence	Inyo	3,907	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Weather Bureau.
Indio	Riverside	−20	33	55.4	− 3.3	77	18	31	22	41	1.06	+ 0.71	0.58	0.0	3	17	10	1	nw.	Fred N. Johnson.
Inskip	Butte	4,975	4	28.3	.....	40	3	10	14	23	11.61	.....	2.92	51.0	8	10	8	10	.....	Cal. Gas & Electric Co.
Ione	Amador	287	33	47.6	− 1.6	64	1†	26	16	....	3.13	+ 0.36	1.01	0.0	10	16	0	12	sw.	Southern Pacific Co.
Jamestown	Tuolumne	1,471	8	43.4	.....	64	9	21	15†	29	3.93	.....	1.30	1.0	5	17	2	9	.....	Sierra Ry. Co.
King City	Monterey	333	24	47.8	− 1.0	72	13	20	16	45	2.16	+ 0.62	1.02	0.0	7	17	0	11	n.	Southern Pacific Co.
Lake Eleanor	Tuolumne	4,700	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	O. J. Todd.

TABLE 1.—*Climatological data for February, 1911. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
California—Continued.																			
La Porte	Plumas	5,000	17																Chas. W. Hendel.
Le Grand	Merced	255	11	45.1	− 3.3	60	20†	30	14†	28	1.40	− 1.42	0.50	0.0	5	21	0	7		Santa Fe Co.
Lemon Cove	Tulare	600	16	50.1	− 3.5	71	2	26	14†	38	2.63	− 0.17	0.93	0.0	4	11	16	1	n.	G. W. Sandidge.
Lick Observatory	Santa Clara	4,209	22	32.9	− 7.6	48	9	19	14†	17	4.37	+ 0.01	1.33	18.0	13	12	6	10	n.	The Director.
Livermore	Alameda	485	40	47.7	− 3.9	68	18	26	16	37	1.42	− 0.85	0.43	T.	11	12	7	9	ne.	Elmer G. Still.
Lodi	San Joaquin	45	29	44.2	− 5.9	64	2	27	15†	28	1.64	− 0.62	0.57	0.0	8	16	6	6	nw.	Ezra Fiske.
Lone Pine	Inyo	2,728	6	38.6	.....	60	18	16	26	35	1.01	.....	0.79	T.	3	15	9	4	s.	G. F. Marsh.
Long Valley	Lassen	4,400	2	25.8	.....	45	2†	0	15†	27	0.30	.....	0.13	5.4	5	4	12	12	sw.	A. G. Evans.
Los Angeles	Los Angeles	293	34	52.5	− 1.6	75	22	39	27	29	2.91	− 0.36	1.04	0.0	9	10	13	5	ne.	U. S. Weather Bureau.
Los Banos	Merced	121	24	50.7	+ 0.4	62	2†	33	16	....	0.79	− 0.20	0.25	0.0	4	14	0	14	n.	Southern Pacific Co.
Los Gatos	Santa Clara	600	24	47.0	− 2.6	65	18	30	27	27	4.79	+ 0.13	1.51	0.0	9	14	4	10	n.	F. H. McCullagh.
McCloud	Siskiyou	3,410	1	34.6	.....	58	5†	2	15	43	5.75	.....	1.28	20.5	8	14	10	4	e.	F. F. Spencer.
Macdoel	....do	4,258	4	20.2	.....	43	9	−12	15	36	0.80	.....	0.30	8.0	6	9	6	13	n.	Butte Valley L'd Co.
Madeline	Lassen	5,270	2	18.2	.....	40	2†	−26	16	48	0.77	.....	0.20	7.5	7	8	14	6	nw.	J. H. Williams.
Magalia	Butte	2,321	7	43.8	.....	62	3	21	13	30	8.65	.....	3.00	1.5	8	17	3	8	nw.	Butte County R. R. Co.
Mammoth Tank	Imperial	257	33	47.8	−11.1	65	1	38	13†	25	0.50	+ 0.15	0.50	0.0	1	17	0	11	w.	Southern Pacific Co.
Marysville	Yuba	67	40	47.2	− 4.1	65	22	27	26	34	2.37	− 0.30	0.76	0.0	6	15	0	13	s.	Do.
Mecca	Riverside	−185	5	53.8	.....	77	8	33	23	37	0.92	.....	0.47	0.0	2	18	7	3	nw.	Edgar A. Palmer.
Menlo Park	San Mateo	64	33	48.8	− 1.4	62	22	32	15	....	2.34	+ 0.28	0.96	0.0	8	14	0	14	n.	Southern Pacific Co.
Merced	Merced	173	37	47.2	− 3.8	67	2	28	18	28	1.74	+ 0.43	0.43	0.0	9	16	4	8	nw.	Santa Fe Co.
Mill Creek No. 1	Amador		4	38.0	.....	54	10†	19	16	23	5.50	.....	1.83	8.0	13	12	1	15	n.	Cal. Gas & Electric Co.
Milton (near)	Calaveras	660	20	45.4	− 5.4	62	2	28	15	20	2.60	− 0.19	0.72	0.0	9	16	7	5	nw.	J. H. Southwick.
Modesto	Stanislaus	90	39	49.0	− 1.1	60	19†	31	16†	....	1.00	− 0.20	0.35	0.0	8	17	0	11	.....	Southern Pacific Co.
Mojave	Kern	2,751	34	52.2	+ 3.4	72	20†	30	4	38	3.10	+ 2.26	1.50	11.0	5	17	0	11	.....	Do.
Mokelumne Hill	Calaveras	1,550	18	43.4	− 1.9	59	22	27	14†	21	3.87	− 0.14	1.00	2.0	12	13	0	15	.....	C. E. Prindle.
Mono Ranch	Ventura	3,210	5	37.7	.....	59	18	19	16†	39	4.79	.....	1.36	10.0	6	14	7	7	nw.	Herbert Lathrop.
Montague	Siskiyou	2,450	23	30.4	−10.8	52	22	7	24	40	0.33	− 1.20	0.11	1.5	6	11	8	9	n.	I. E. Deboy.
Monterey	Monterey	15	46	44.6	− 6.6	60	2†	24	16	....	5.73	+ 3.21	1.25	0.0	10	14	13	1	e.	Southern Pacific Co.
Monterio	Kern	4,500	12	41.8	− 5.9	66	10	22	15†	28	4.21	+ 0.69	0.75	0.0	10	8	5	15	nw.	John C. Knecht.
Mount Tamalpais	Marin	2,375	12	40.4	− 5.2	58	18	28	14	17	3.87	− 0.56	1.19	4.5	11	12	4	12	nw.	U. S. Weather Bureau.
Napa City	Napa	20	34	45.8	− 3.6	69	18	27	16	35	3.09	− 1.17	1.14	0.0	8	6	22	0	.....	Thomas Hull.
Napa (S. H.)	....do	60	33	46.0	− 3.4	69	18	29	16	33	2.22	− 1.85	0.55	0.0	11	14	8	6	sw.	W. H. Martin.
Needles	San Bernardino	477	19	56.1	− 1.7	73	15	40	21	31	T.	− 0.16	T.	0.0	0	22	3	3	w.	Santa Fe Co.
Nellie	San Diego	5,350	2																	T. O. Bailey.
Nevada City	Nevada	2,580	19	38.4	− 4.1	61	8†	13	15	40	5.23	− 2.34	1.55	8.5	13	11	3	14	sw.	S. W. Marsh.
Newcastle	Placer	970	18	45.8	− 1.9	63	18	29	14†	29	3.67	+ 1.32	1.09	0.5	12	13	0	15	s.	George D. Kellog.
Newhall	Los Angeles	1,200	34	41.2	− 9.0	62	6†	22	3†	....	5.78	+ 2.90	2.00	0.0	6	17	0	11	ne.	Southern Pacific Co.
Newman	Stanislaus	91	22	54.6	+ 2.8	68	20	44	16	23	0.84	− 0.57	0.23	0.0	5	16	0	12	n.	E. S. Wagenheim.
Nimshew	Butte	2,500	7	38.6	.....	60	18	15	15	39	8.96	.....	3.80	10.0	10	.....	.....	.....	.....	Cal. Gas & Electric Co.
North Bloomfield	Nevada	3,200	14																	
North Fork	Madera	3,000	7	38.9	.....	63	10	17	15†	32	5.71	.....	1.33	5.7	9	4	15	9	sw.	C. H. Chinn.
Oakdale	Stanislaus	156	17	45.2	− 3.5	61	5†	27	16	....	1.46	− 0.36	0.37	0.0	10	14	10	4	nw.	Southern Pacific Co.
Oak Grove	San Diego		1	41.4	.....	71	2	11	15	49	3.96	.....	2.11	3.0	7	11	11	6	nw.	Ben L. Johnson.
Oakland	Alameda	36	35	47.8	− 2.5	61	18	32	16	22	2.56	− 0.81	0.45	0.0	11	14	7	7	w.	Chabot Observatory.
Oceanside	San Diego		1	51.2	.....	70	22	34	15	30	3.59	.....	0.78	0.0	10	12	12	4	.....	H. D. Brodie.
Ojai Valley	Ventura	900	5	48.4	.....	74	22	26	17	44	3.82	.....	1.45	0.0	6	15	10	3	sw.	Wm. H. Duncan.
Orland	Glenn	254	29	45.6	− 5.6	64	18	27	13	29	2.96	+ 0.88	1.04	0.0	10	14	9	5	n.	U. S. Reclamation Service.
Orleans	Humboldt	520	8	47.0	.....	72	22	28	20	41	3.49	.....	0.80	0.5	11	14	4	10	.....	F. T. Hale.
Oroville (near)	Butte	250	27	47.1	− 4.4	63	18	28	15†	30	2.33	− 1.07	0.85	0.0	7	15	5	8	nw.	E. D. Fairchild.
Palermo	...do	213	20	45.8	− 3.9	66	18	24	16	36	2.27	+ 0.01	0.70	0.0	6	10	9	9	n.	Hettie Boalt.
Palm Springs	Riverside	584	22	52.6	− 6.1	71	9†	38	16†	....	2.23	+ 1.57	1.98	0.0	2	17	8	3	e.	Southern Pacific Co.
Pasadena	Los Angeles	827	21	49.0	− 3.4	73	22	30	17	38	4.70	+ 2.89	1.40	0.0	8	20	4	4	sw.	E. D. Sorven.
Paso Robles	San Luis Obispo	800	24	46.3	− 1.5	69	23	22	16	41	2.39	+ 0.07	0.70	0.0	9	16	2	10	nw.	Dr. F. W. Sawyer
Peachland	Sonoma	190	15	44.8	− 5.7	68	18	23	16	37	4.71	− 0.98	1.38	T.	12	15	7	6	se.	E. H. Parnell.
Penstock Camp	Tuolumne	3,750	4																	Tuolumne W. P. Co.
Placerville	El Dorado	1,875	22	40.8	− 2.8	58	1	22	16†	28	4.07	− 1.68	1.14	2.0	11	8	7	13	.....	A. Baring-Gould.
Point Lobos	San Francisco	250	18	49.2	− 0.9	64	18	39	27	18	2.89	+ 0.89	0.60	0.0	12	16	3	9	ne.	John Hyslop.
Point Reyes	Marin	490	19	47.6	− 1.6	57	4	37	27	11	2.24	− 0.27	0.58	T.	12	14	3	11	nw.	U. S. Weather Bureau.
Porterville	Tulare	464	22	48.8	− 2.9	67	2†	27	15	35	1.80	+ 0.72	0.97	0.0	5	16	10	2	.....	Leslie McAuliff.
Quincy	Plumas	3,400	16	27.0	−11.0	44	10†	− 5	15†	46	3.18	− 3.81	0.64	19.5	8	14	5	9	sw.	U. S. Forest Service.
Red Bluff	Tehama	307	34	45.8	− 3.5	62	3	29	14	28	2.20	− 1.50	0.94	T.	9	14	4	10	nw.	U. S. Weather Bureau.
Redding	Shasta	552	36	45.4	− 3.9	63	3	29	14	24	4.80	+ 0.58	0.91	T.	9	15	4	9	n.	L. F. Bassett.
Redlands	San Bernardino	1,352	18	46.4	− 5.8	70	8†	31	17	37	3.88	+ 1.21	1.02	T.	12	11	8	9	w.	Paul W. Moore.
Reedley	Fresno	347	11	46.8	− 4.1	66	22	27	15	33	1.52	− 0.06	1.12	0.0	3	20	1	7	n.	Santa Fe Co.
Rialto (near)	San Bernardino	2,250	5	47.0	.....	66	9†	33	26	23	9.73	.....	2.57	8.5	13	12	7	9	n.	So. Cal. Edison Co.
Riverside	Riverside	851	29	49.7	− 3.0	74	22	30	17	42	2.80	+ 1.01	0.85	0.0	9	12	7	9	.....	C. W. Barton.
Rocklin	Placer	249	40	47.4	− 2.7	67	19	27	26	36	3.20	+ 0.24	0.90	T.	10	13	4	11	ne.	Southern Pacific Co.
Rohnerville	Humboldt	75	8	43.4	.....	59	21	25	27	31	4.49	.....	1.26	0.0	9	10	10	8	nw.	Dr. R. Callaham.
Sacramento (1)	Sacramento	71	34	46.9	− 3.3	63	22	32	14	24	1.88	− 1.27	0.83	0.0	12	16	3	9	nw.	U. S. Weather Bureau.
Sacramento (2)	....do	35	58	46.5	− 4.0	62	18†	30	14†	28	2.57	− 0.18	0.55	T.	12	15	2	11	nw.	S. H. Gerrish.
St. Helena	Napa	255	3	46.6	.....	72	18	25	16	35	3.65	.....	1.13	0.0	11	17	0	11	n.	B. F. Kettlewell.
Salinas	Monterey	40	37	48.0	− 2.3	68	22	28	16	33	1.98	− 0.18	0.49	0.0	11	15	8	5	w.	Miss E. Ruth Abbott.
San Bernardino	San Bernardino	1,054	19	49.7	− 3.6	75	8†	30	19†	44	4.22	+ 1.37	1.43	0.0	12	13	9	6	sw.	Dr. A. K. Johnson.
San Diego	San Diego	93	40	52.2	− 2.4	70	22	34	16	26	4.92	+ 2.66	1.69	0.0	11	13	8	7	e.	U. S. Weather Bureau.
San Francisco	San Francisco	207	40	49.3	− 2.0	67	18	38	27	24	3.02	− 0.67	0.68	T.	11	15	4	9	nw.	Do.
San Jacinto	Riverside	1,550	18	50.0	− 1.3	89	22	26	16†	58	3.19	+ 2.04	0.97	0.0	9	12	3	13	w.	E. T. Tanner.
San Jose	Santa Clara	95	36	46.9	− 3.7	66	18	27	16	30	2.03	− 0.12	0.60	0.0	9	15	1	12	se.	U. S. Weather Bureau.
San Leandro	Alameda	48	16	45.0	− 9.7	62	22†	27	15	32	3.55	− 0.27	0.92	0.0	11	16	1	11	e.	Frank Jones.
San Luis Obispo	San Luis Obispo	201	16	48.6	− 3.9	70	22	34	9	33	4.86	+ 1.08	1.07	0.0	12	11	6	11	w.	U. S. Weather Bureau.
San Mateo	San Mateo	22	37	48.1	− 1.5	64	23	28	15	....	2.03	− 2.01	0.87	0.0	9	13	4	11	sw.	Southern Pacific Co.
San Miguel	San Luis Obispo	616	24	46.1	− 3.1	64	2†	28	15†	....	2.01	+ 0.34	0.42	T.	7	6	12	10	.....	Do.
San Miguel Island	Santa Barbara	500	17																	Capt. W. G. Waters.
Sanger	Fresno	371	22																	Southern Pacific Co.
Santa Barbara	Santa Barbara	130	27	50.6	− 4.2	68	18	32	16	33	4.92	+ 1.80	2.31	0.0	9	20	5	3	sw.	Geo. W. Russell.
Santa Clara	Santa Clara	90	22	47.0	− 4.7	68	18	26	15†	33	2.48	+ 0.24	0.59	0.0	11	15	0	13	nw.	Santa Clara College.
Santa Cruz	Santa Cruz	20	38	47.4	− 5.3	67	18†	26	15	34	5.63	+ 1.58	1.17	T.	12	18	4	6	n.	W. R. Springer.
Santa Margarita	San Luis Obispo	996	22	46.5	0.0	62	4	27	16	....	3.66	− 0.24	1.00	0.0	8	7	14	7	sw.	Southern Pacific Co.
Santa Maria	Santa Barbara	220	23	46.8	− 5.8	70	2	28	16	30	3.80	+ 1.82	1.12	0.0	6	21	0	7	sw.	Edwin Morris.
Santa Monica	Los Angeles	110	26	49.6	− 5.0	68	22	36	26	28	2.67	+ 0.31	1.05	0.0	5	17	4	7	w.	N. D. Ingham.
Santa Rosa	Sonoma	181	22	46.0	− 4.5	68	18	25	16	36	2.75	− 1.11	0.68	0.0	11	10	8	10	nw.	M. L. McDonald, jr.
Selma	Fresno	311	24	45.0	− 5.8	63	7†	30	16	....	1.32	+ 0.36	1.02	0.0	4	10	12	6	se.	Southern Pacific Co.
Seven Oaks	San Bernardino	5,000	1																	M. Lewis.
Shasta	Shasta	1,148	15	46.6	− 1.7	69	3†	22	15	42	5.04	− 4.64	2.54	0.0	5	21	2	5	nw.	Dr. T. J. Edgecomb.
Sierra Madre	Los Angeles	1,400	14	49.6	− 5.3	69	22	34	16	28	5.93	+ 1.57	1.85	0.0	8	10	4	14	se.	Mrs. A. C. Gregory.
Sierraville	Sierra	5,000	1	18.2	.....	46	2	−30	16	50	2.40	.....	0.90	24.0	4	9	10	9	sw.	C. D. Johnson.

TABLE 1.—*Climatological data for February, 1911. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
California—Continued.																			
Sisson	Siskiyou	3,555	22	28.4	− 8.3	51	4	4	13†	30	3.94	+ 0.46	1.20	33.0	7	17	3	8	n.	Southern Pacific Co.
Soledad	Monterey	188	37	49.5	− 0.7	66	4	35	25	....	1.55	+ 0.15	0.42	T.	7	12	0	16	.....	Do.
Southeast Farallon	San Francisco	30	8	49.4	.....	58	4	39	27	11	2.67	.....	0.69	0.0	11	14	5	9	nw.	U. S. Weather Bureau.
Sonora	Tuolumne	1,825	23	43.0	.....	59	19	23	16	25	4.02	− 2.12	1.36	4.5	11	11	12	5	se.	Chas. P. Jones.
Squirrel Inn	San Bernardino	5,280	1	33.0	.....	48	9	15	26	18	11.61	.....	3.21	34.2	10	9	9	10	n.	A. D. Frantz.
Stirling City	Butte	3,525	7	35.8	.....	59	19†	11	14	36	2.50	.....	1.05	21.0	5	7	13	8	.....	Butte Co. R. R. Co.
Stockton (S. H.)	San Joaquin	23	40	46.0	− 4.0	58	1†	31	15†	23	1.41	− 0.77	0.40	0.0	7	15	8	5	nw.	State Hospital.
Storey	Madera	296	11	44.3	− 3.1	65	2	27	27	32	0.95	− 0.98	0.45	0.0	3	....	....	....	.....	Santa Fe Co.
Suisun	Solano	20	31	48.7	− 2.8	72	8	35	17†	....	1.57	− 1.07	0.62	T.	5	20	0	8	sw.	Southern Pacific Co.
Summerdale	Mariposa	5,270	15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	J. H. Lowry.
Summit	Placer	7,017	38	21.4	− 7.4	38	22	− 8	27	30	5.30	− 1.71	1.50	53.0	10	17	0	11	w.	Southern Pacific Co.
Susanville	Lassen	4,175	22	25.2	− 9.2	47	10†	− 7	16	34	0.70	− 2.16	0.25	5.0	5	8	16	4	sw.	James Branham.
Tamarack	Alpine	8,000	5	20.5	.....	42	8†	−25	26	64	13.60	.....	3.00	136.0	13	9	1	18	sw.	William Bennett.
Techachapi	Kern	3,964	34	39.1	− 0.2	56	1	25	12	....	1.60	− 0.89	0.51	0.0	7	....	....	....	.....	Southern Pacific Co.
Tehama	Tehama	220	40	47.3	− 3.7	66	24	30	15†	....	2.10	− 0.33	1.00	0.0	4	16	1	11	n.	Do.
Tejon Rancho	Kern	1,500	9	42.2	.....	59	4†	26	17	26	2.50	.....	0.94	0.0	5	....	....	....	.....	S. E. Bailey.
Three Rivers	Tulare	870	1	46.2	.....	67	10	25	26	34	3.09	.....	0.95	0.0	8	10	14	4	sw.	E. D. Barton.
Towle	Placer	3,704	25	36.0	− 5.8	64	8	12	15	39	5.52	− 2.28	1.30	24.0	11	13	2	13	s.	Southern Pacific Co.
Tracy	San Joaquin	64	31	46.9	− 3.6	60	23	31	16	....	0.61	− 0.55	0.25	0.0	7	13	3	12	nw.	Do.
Ukiah	Mendocino	620	18	43.4	− 4.3	66	22	24	15	39	4.19	− 0.93	1.05	0.0	11	11	6	11	nw.	Dr. Geo. McGowen.
Upland	San Bernardino	1,750	14	49.2	− 2.7	76	9	27	16	42	6.25	+ 2.62	2.02	1.0	11	13	5	10	w.	A. P. Harwood.
Upper Lake	Lake	1,350	26	39.7	− 7.8	62	19†	13	15	39	2.99	− 0.33	0.84	T.	9	17	0	11	nw.	C. M. Hammond.
Vacaville	Solano	175	23	47.5	− 3.7	70	18	29	14†	39	3.11	− 0.33	1.00	0.0	10	12	12	4	n.	G. O. Coburn.
Valley Springs	Calaveras	673	22	46.9	− 4.0	57	5†	30	15	....	3.87	+ 1.23	1.20	0.0	10	10	5	13	s.	Southern Pacific Co.
Visalia	Tulare	334	23	50.8	+ 2.1	62	2†	38	15†	16	1.27	+ 0.16	0.80	0.0	4	16	4	8	.....	Santa Fe Co.
Warner Springs	San Diego	3,165	3	43.2	.....	70	8	16	15	40	4.71	.....	1.63	5.8	10	11	6	11	.....	Mrs. E. F. Sanford.
Wasco	Kern	336	11	44.6	− 5.0	67	28	21	22	45	1.25	− 0.18	0.84	0.0	3	12	7	9	.....	Santa Fe Co.
Watsonville	Santa Cruz	23	15	46.8	− 5.5	67	22	26	15†	35	4.44	+ 0.96	1.32	0.0	10	11	7	10	s.	Spreckels Sugar Co.
Weitchpec	Humboldt	1,700	1	38.0	.....	56	21†	20	14	29	5.84	.....	1.28	16.9	14	13	6	9	sw.	M. E. Lathrop.
Westley	Stanislaus	90	22	47.4	− 5.0	61	21	32	14†	....	0.60	− 0.47	0.37	0.0	4	19	0	9	n.	Southern Pacific Co.
Wheatland	Yuba	84	24	45.4	− 3.3	62	18	28	26	26	2.40	− 0.16	0.61	0.0	11	14	4	10	n.	Wm. Lumbard.
Willows	Glenn	136	32	45.6	− 3.2	68	19	28	15†	29	2.34	+ 0.41	0.77	0.5	10	14	4	10	n.	M. T. Harrington, jr.
Yosemite	Mariposa	3,945	7	34.0	.....	61	8†	7	26	44	4.31	.....	1.30	20.3	11	15	2	11	n.	J. P. Kelley.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days mission from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 11, California.*

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Oregon.																														
Klamath Agency	Klamath						.20				.15			.45																0.80
Klamath Falls	do	T.	T.		T.		.17			T.		.16	.12	.10				T.								T.	T.			0.55
Long Valley	Pitt	.04	.24	T.		.06	.03				T.	.34	.14	.16				.01						.03		T.	.01			1.06
Merrill	Interior drainage	.20					.10					.16		.10																0.56
Yonna	do		.10	T.		.08						.20	.12														T.			0.50
California.																														
Aguanga	Coast			.75	1.78							.31									.20				.17			.68		3.89
Alameda	do	.10	.10	.20		.10					.65	.10	.15	.10														.10		1.60
Aturas	Sacramento		.27	.04		.02	.07					.11		.08				T.		T.						T.	T.			0.59
Angels Camp	San Joaquin	.42	.26	.30								.96		.21						.05									1.37	3.57
Angiola	do			1.04							.23			.23																1.50
Antioch	do				.33							.20		.20	.12														.38	1.23
Aptos	Coast	.30	.07	.20	.50		.30					.82	.20	1.82	.08														.40	4.69
Arrowhead Springs	do																													
Auburn	Sacramento		.15	.06	.32		.60					1.12		.48	.10													.10		2.93
Avalon	Ocean			.59	.99							.16	.07	.05	.33													.37	.15	2.71
Azusa	Coast			.03	1.19							.47		.81							.03				.08		.16			2.77
Bagdad	Desert																													0.00
Bakersfield	San Joaquin			1.01										.57	.30										.04					1.92
Barstow	Desert			.15	.19								.21													T.			.22	0.77
Bear River	San Joaquin																													
Bear Valley (1)	Sacramento		.92	.48	.36	.28					2.44	.20	1.40	.70												.10		.62	7.50
Bear Valley (2)	San Joaquin				.60								.57	.85	T.				.27	T.										2.29
Bear Valley Dam	Coast																													
Belotta	San Joaquin	.34	.04	.03	.50	.12						.68		.36														.10	.20	2.37
Ben Lomond	Coast	.80	.37	.63	.10	.17					1.72	1.10	.59	.84													T.	1.05	.80	8.17
Berkeley	do	.19	.65			.11						.76	.30	.71													.18	.30	.85	4.05
Biggs	Sacramento		.15		.26		.25					.55		.35															.50	2.06
Bishop	Owens			.43										T.														1.23		1.66
Bishop Creek	do																													
Blocksburg	Coast	.11	1.46		.08	.31	.17			T.	.80	.50	.60	.65	.24		.10	.24							.05			.07		5.38
Blue Canyon	Sacramento	.70	.30	.75	.30	.50						2.90	.30	.80	.80														.05	7.40
Blythe	Desert																													
Boulder Creek	Coast		.73		.94							1.92		1.82													T.	T.	.85	6.26
Bowmans Dam	Sacramento																													
Branscomb	Coast	.12	.62		.32	.30	.36			T.	.50	3.50	T.	1.00	T.			.13								T.	T.	T.		6.85
Brush Creek	Sacramento		1.82	.35	.42							2.23		2.01																6.83
Burney	do	.22	.75	T.	T.	.53	.13				T.	1.16	.08	.35	T.											T.	T.			3.22
Butte Valley	do	.04	1.05	.01	.01	.58	.18					1.40	.33	.73																4.33
Calexico	Desert			.35	.62																									0.97
Caliente	San Joaquin			.73	.04							.85		.14																1.76
Calistoga	Coast		.55	.07	.11		.50					1.33		.90																3.46
Campbell	do	.02		.60		.01						.02	.08	.21														.20	.30	1.44
Campo	do		1.37	1.13	1.11							.31		.10	.65						.05				.33				.65	5.70
Camptonville (near)	Sacramento	.11	1.29	.14	.52	.95	.44					2.49	.77	2.00	.40														.26	9.37
Cedarville	Mountain Lakes		.25			.02	.14					.08	.08	.25						.15				.09		.08				1.14
Chester	Sacramento		.30				.26					1.40		.40	.20															2.56
Chico	do	.02	.34		.05	.14					.13	.48	.22	.45											.13				.23	2.04
Chico (near)	do	T.	.48	T.	.12	T.					.82		.64	T.														T.	.50	2.56
China Flat	Coast	.11	.53	T.		.21	.33				.57	.34	.54	.55	.46		T.	.07							.13					3.84
Chino	do	.09		.26	1.19								.22									.10						.70	.57	3.38
Cisco	Sacramento	.60	.80		.10	.30	0.40					.70	.50	.70	.60									T.		T.				4.70
Claremont	Coast	.11		.36	1.22	.12	.01	.01					.38		.94	.08	.04				.25	.12			.02		.04	.51	.57	4.78
Cloverdale	do	.34	.97	.17	.09	.33	T.				1.63	.41	.60	.35															.20	5.09
Colfax	Sacramento	.45	.31		.68	.78	.37					.62	.15	.88	T.										.10			.05	.05	4.44
Colgate	do	.32	.39	.22	.45	.62	.28					1.41	.01	.58	.18	.01													.08	4.55
Colusa	do																										T.	.02	.39	0.41
Corning	do	.51		.05		.04					.82		.30															.22	.66	2.60
Corona	Coast			.60	.66	.13						.18		.27							.07				.41	.06		1.01	.23	3.62
Cuyamaca	do		1.07	2.74	1.04							.40	.09	1.19	.08	.22					.13				.49	.11		.63	.07	8.26
Daunt	San Joaquin	.10			.89	T.	.06					.30	.29	1.33	.30	.47	.13							T.	.23	.05	.61	.10	.03	4.29
Davisville	Sacramento	.01	.18	.21	.10							.24	.08	.23													.05	.48	.23	1.79
Deer Creek	do	.12	1.00	.12	.58	1.16	.38					2.03	.32	1.86	.06									T.		T.	T.	T.	.09	7.72
Del Monte	Coast																													
Delta	Sacramento	.80	.90			.30	.10				1.90	1.30	1.80	.20																7.30
Denair	San Joaquin		.02	.12	.10							.17	.02															.06	.08	0.57
Descanso	Coast				1.39	1.65							.78		1.05										.35				1.00	6.22
Dinuba	San Joaquin			1.15								.17	.05	.28																1.65
Dobbins	Sacramento	.05	.67	.16	.63	.45	.07					1.39	.23	.51	.08	T.								.01			T.	.06	.04	4.35
Downieville	do	.08	1.02	.08	.50	.82	.47					1.58	.09	1.65	.12															6.41
Dudleys	San Joaquin		.10	.28	.55	.01						.85	T.	1.30	.24					T.	.08			.11	T.	.05	T.	.38	.18	4.13
Dunnigan	Sacramento		.15	.05	.17							.35		.52														.03	.33	1.60
Dunsmuir	do	.78	1.73	.08		.25	.17	.11			.10	1.26	.60	1.33																6.47
Durham	do	1.19	.37	.04	.09							.62	.68	.04														.06	.10	2.05
Dyerville	Coast			.50	1.00	.25	.75			.30				1.00		.90												.15	.30	5.15
East Park	Sacramento	.82		.24	.08						.50	.12	.11															.82	.97	3.66
Edgeworth	Klamath																													
Edison	San Joaquin			.22	.58							.70		.42																1.92
El Cajon	Coast			1.26	.75	.11						.14	.40	.04	.31	.09					.02				.10	.01		.68	.09	4.00
Electra	San Joaquin	.80	.04		.40	.23	.32					1.07	.05	.83	.75	.10												.22	.19	5.00
Elsinore	Coast		.20	.39	.30							.15		.18											.12		.71	1.04	.15	3.24
Emigrant Gap	Sacramento																													
Escondido	Coast		.24	.95	.86	.07						.30	.08	.20	.25	.04												1.19	.08	4.26
Eureka	do	.31	.03			.59	.15				1.67	.07	.23	.28	.04		.06	.07								.24	.01			3.75
Fairmont	do											45														T.		1.80		2.25
Farmington	San Joaquin	.55	.02		.33	.08	.08					.60		.37	.17													.16	.12	2.48
Felton	Coast	.23	.54	.38	.65	.15					1.23	.67	1.57	.07																5.49
Firebaugh	San Joaquin		T.		.12	.04						.11	.02		.03														T.	0.32
Folsom	Sacramento	.18	.12	.06	.42	.16	.04					.74		.24	.06													.36	.38	2.76
Fordyce Dam	do	.40	1.30	.18	.60	.50	.70					1.40	.20	1.80	.30									T.		T.	T.	T.		
Fort Bragg	Coast	.32	.38	.02	.39	.22				.40	1.26	.24	.61	.11	.23															4.18
Fort Ross	do	.74	.33	.18	.14	.25	.08				1.76	1.07	1.46	.35	.06													.05	.03	.30	6.80
Fouts Springs	Sacramento																													
Fredalba	Coast	1.80		1.10	2.30							1.40		1.70							.30				.40	.70	2.30			12.05
Fresno	San Joaquin		T.	.50	.12							.21		.19	T.													.03	.02	.07	1.14
Fruto	Sacramento		.70		.10	.80						.35		.10	T.														.45	2.50
Galt	San Joaquin	.17	.05		.48	T.	.05					.30	T.	.25	.11													.33	.22	1.96
Georgetown	do	.88	.18	.10	.55	.57	.39					1.95	T.	1.59	.48	.02									.02			.09	.14	6.96
Gilroy	Coast	.16	.02	.15	.25		.20					.55		.36	.20														.30	2.19
Gilta	do	.30	.60	.03		.34	.54			.11	.43	.40	.63	.89				.10												4.37
Glendora	do		.23	1.65	.35							.55		1.08							.23	.06		.20			.68	.72	.17	5.92
Glen Ranch	do	.37		.47	3.12	.23							1.09		.51								.12		.22		.13	1.63	1.15	9.04
Glennville	San Joaquin			.90							2.00			2.95														1.00		6.85
Glenwood	Coast	.50	.28	.65	.03	.18					1.37	.50	.90	.23														.65	1.35	6.64
Gold Run	Sacramento	.70	.30	.30	.40	.74	.71					1.60	.20	1.85	.20	T.								T.				T.	.10	7.10
Gonzales	Coast		.29	.20							.48	.15	.28	.20													.09	.47	.52	2.68

TABLE 2.—*Daily precipitation for February, 1911. District No. 11*—Continued.

Stations.	River basins.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
California—Continued.																														
Grass Valley	Sacramento	.04	.60	.29	.59	.67	.26					1.64		1.47	.10													.14	.13	5.93
Greenville	do	.06	.72	T.	T.	.10	T.					3.74	.12	.38																5.12
Gridley	do		.20	.05	.35	.01	.20					.64	.04	.50	.15													.12	.31	2.57
Groveland	San Joaquin	.03	.07	.39	.52	.06						1.30		1.54	.15						.05			.13						4.24
Guinda	Sacramento		.34	.11	.23		.05					.48		.50	T.												T.	.60		2.31
Hanford	San Joaquin				1.02							.08		.06	.26													.04		1.46
Head Dam	Sacramento	.08	.79	.30	.58	.95	.13					2.08	.27	.10	.70													.03	.08	6.09
Healdsburg	Coast	1.02	.19	.28	.06						.38	1.14	.45	.62													T.			4.14
Hearst	do																													
Heber	Desert																													
Helen Mine	Coast	.27	1.80	.15	.16	.98	.06				1.85	1.46	.36															.25	.11	7.45
Hesperia	Desert			.25	.65						.59	.25																1.35		3.09
Hetch Hetchy	San Joaquin																													
Holcomb	Coast			.36	1.03							T.	.30		T.	.50					T.	.90					.30	.86	.12	4.37
Hollister	do	.05		.09	.48	.05	.04					.27		.12	.25													.04	.26	1.65
Hornbrook	Klamath													T.																T.
Hot Springs	San Joaquin				.77	.03						.25	.20	.03	1.55	.05					.20			.12			.05	.16		3.41
Hullville	Coast	.08	.78	.01	.11	.28	.09				.93	.95	.85	.49			.03	.13								T.	.01		.06	4.80
Idyllwild	do			.56	2.18	.27						.39		.10	1.06	.10					.25				.35			.80	.20	6.26
Independence	Owens																													
Indio	Desert			.58	.45																							T.	.03	1.06
Inskip	Sacramento	.75	2.80		.32	1.32					.80	2.92	.95	1.75																11.61
Ione	San Joaquin	.38	.02		.30	.11	.06					1.01		.20	.15													.48	.42	3.13
Jacksonville	do	.10	.06		.34	.22	.05					.58	.20	.28	.56										.21			.30	.27	3.17
Jamestown	do		.40									1.30		1.20														.68	.35	3.93
Jenny Lind	do	.50	.04		.30	.12	.14					.75		.30	.30													.30	.45	3.20
Jolon	Coast			.59	.13							.62	.07	.11	.09										.04			.97	1.73	4.35
Julian	do			2.65	2.00									2.05							.05					.70		.80		8.25
Kennedy Mine	San Joaquin																													3.29
Kennett	Sacramento	.34	.94	.62		.25	.18	.03			.58	2.48	.34	1.66																7.38
Kentfield	Coast		.83	.37	.18	.20	.02				.45	.89	1.67	1.25														.12	.80	6.78
Kernville	San Joaquin			.36										.33																.69
King City	Coast			.22	.34							.38	.05		.05													.10	1.02	2.16
Knights Landing	Sacramento	.05	.08	.08	.28	.10	.04					.35	.08	.38	T.													.05	.28	1.77
Knob	do																													
La Grange	San Joaquin			.20	.15							.36		.57														.30	.28	1.86
Lake Eleanor	do																													
Lakeside	Coast																													
La Porte	Sacramento																													
Lathrop	San Joaquin				1.36								.06															.02	.06	1.50
Laurel	Coast	.15	.45	.15	.65	.10	.20					1.50	.45	1.00	.20														.50	5.35
Laytonville	do	.62			.56								1.31			.23														2.72
Le Grand	San Joaquin			.11								26															.28	.25	.50	1.40
Lemon Cove	do			.93								43		.83										.44						2.63
Lick Obsy	Coast	.31	.04	.39	.24	.13	.17					.79	.25	1.33	.31											.05	.02	.34		4.37
Livermore	do	T.	.01	.43	.01	.11	.03				T.	.41	T.	.29												.03	.01	.05	.04	1.42
Lodi	San Joaquin		.03	.34		T.	.03				T.	.34	.02	.57														.24	.07	1.64
Lone Pine	Owens			T.	.79																T.				T.			.15	.07	1.01
Long Camp	San Joaquin																													
Long Valley	Mountain Lakes			T.	T.	T.	T.					.13	T.	.06	.04						.06			T.	.01		T.	T.	T.	.30
Lordsburg	Coast			.33	1.00								.76		.81						.30							1.00		4.20
Los Alamos	do			.72	.48				.84	.15		.38												T.			.06	.26	.75	3.64
Los Angeles	do		.02	1.01	.24							.52		.23							.02				T.		.24	.41	.22	2.91
Los Banos	San Joaquin			.25							.14			.20															.20	.79
Los Gatos	Coast	.03	.30	.75		T.					.31	1.51	.52	.65														.06	.66	4.79
Los Molinos	Sacramento	.51	T.	.04	T.	.25				.11	.91	.10	.20														.05	.05	.50	2.72
Lowe Obsy	Coast																													
McCloud	Sacramento	.87	.75			.45	.05				1.28	1.11	.88	.36																5.75
Macdoel	Klamath		.10				.10					.30		.20												.05	.05			.80
Madeline	Mountain Lakes	.10	.05		T.	T.	.05					.12	.10	.20		T.		T.	T.				T.	T.		.15		T.	T.	.77
Magalia	Sacramento	2.00	.55		.40	.60					3.00	.95	1.00	.15																8.65
Mammoth Tank	Desert				.50																									.50
Mariposa	San Joaquin	.30	.02		.69							.93	.51	.55	.44	.05									.04			.25	.18	3.96
Marysville	Sacramento	T.	T.	.42		.05					.76		.42															.37	.35	2.37
Mecca	Desert			.47	.45																								T.	.92
Melones	San Joaquin	.10	.08	.08	.32	.26	.06					.74	.10	.50	.36													.25	.16	3.01
Menlo Park	Coast		.09	.12	.52	.03							.96	.20	.17														.25	2.34
Merced	San Joaquin	.43	.06		.10	.21							.19	.31	.18													.17	.09	1.74
Merced Falls	do	.21			.15		.02					.24	.26	.11	.26										.02			.28	.11	1.66
Mesa Grande	Coast			.89	1.77	.44							.60	.13	1.17	.42					.12					.48	.13		1.15	7.30
Mill Creek (1)	San Joaquin	.15	.16	.35	.44	.04	.51					1.46	.12	1.83	.11									.12				.16	.05	5.50
Mill Creek (2)	Coast		.04	.62	1.50	T.						.82	T.	.36	.07	.55					.37				.21	.22	.05	.98	.05	5.84
Mills College	do	.04	.20	.38	.01	.08	.02				.03	1.40	.45	.60													.14	.12	.12	3.59
Milo	San Joaquin																													
Milton (near)	do			.20	.20	.11						.72		.68									.01				.29	.27	.12	2.60
Modesto	do	.10	.02		.23							.10	.05	.05														.35	.10	1.00
Mojave	Desert		1.50	.25										.25														.80	.30	3.10
Mokelumne Hill	San Joaquin			.03	.12	.42	.25					1.00	.57	.81	.07													.20	.40	3.87
Mono Ranch	Coast				.47	1.36						.95		.09													T.	.82	1.10	4.79
Monroeville	Sacramento		.32									.48		.30															.35	1.45
Montague	Klamath		.98									.11	.01	.08												.02	.03			.33
Monterey	Coast			.26	.69		.09					.98	.84	.20	.40													.52	.50	1.25	5.73
Monterio	San Joaquin				.66	.35						.50		.40		.75	.10							.25	.20	.75	.25			4.21
Montgomery Creek	Sacramento	.62	1.60	.10		.67	.80				.40	1.50	.40	1.60																7.69
Mount Tamalpais	Coast	.20	.24	.44	.10	.15					.67	.24	.87	.35													T.	.38	.23	3.87
Mount St. Helena	do																													5.72
Napa City	do	.07	.48	.23	.08	.22						.74		1.14															.13	3.09
Napa (S. H.)	do	.09	.27	.09	.24	.05	.12						.55	.42	.33													.02	.04	2.22
Needles	Desert																												T.	T.
Nellie	Coast																													
Nevada City	Sacramento	.04	.63	.18	.52	.72	.28	.01				1.55	.11	1.01	.06									T.		T.	T.	.04	.08	5.23
Newcastle	do	.02	.28	.38	.54	.18	.04					1.09	.07	.44													.04	.50	.09	3.67
Newhall	Coast		2.00	1.00								1.25			.15												.80	.58	5.78
Newman	San Joaquin			.23	.15	T.						.07		.23													T.	T.	.16	.84
Nimshew	Sacramento	.07	1.35	.07	.25	.68					.31	3.80	1.00	1.08															.35	8.96
North Bloomfield	do																													
North Fork	San Joaquin	.54		.27	1.10							1.33		1.20	.15						T.			.35	.57			.20		5.71
North Lakeport	Coast	.11	.12	.19		.20					1.22	.05	.60																.30	2.79
Oakdale	San Joaquin	.05	.06		.20	.10						.26	.04	.37	.09													.08	.21	1.46
Oak Grove	Coast			2.11	.13							.33		.05		.14								.29				.91		3.96
Oakland	do	.07	.24	.37		.02	.02				.41	.45	.45	.28												T.	T.	.08	.17	2.56
Oakville	do	.10	.69	.08		.18	.27					1.01	.23	.52														.04	.25	3.37
Oceanside	do		.38	.78	.06							.06	.45	T.	.53	T.	.07								.07	T.	.55	.64		3.59
Ojai Valley	do				1.45								.63		.48						.02							.58	.66	3.82
Orland	Sacramento	.50		.03	.01	T.				.07	.48	.16	.08														.08	.51	1.04	2.96
Orleans	Klamath	.41	.03		.14	.60				.03	.80		.97	.40			.03	.05							.03					3.49

TABLE 2.—*Daily precipitation for February, 1911. District No. 11*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
California—Continued.																														
Oroville	Sacramento		.17	.42	.20	.19						.85	.50																	2.33
Ozena	Coast	1.53										1.28			.60	.19									.15	.30	.45	.50	.75	5.75
Palermo	Sacramento	.15			.50	.15					.70			.37														.40		2.27
Palm Springs	Desert				1.98																							.25		2.23
Parkfield	Coast			.51	.44	.20						.36		.67														.14	.20	2.52
Pasadena	do			.57	1.40							.63		.20	.41										.13			.87	.49	4.70
Paso Robles	do	.05		.18	.40							.45		.15	.14										.07			.25	.70	2.39
Peachland	do	.17	.78	.18	.09	.20	.02				.87	.40	1.38	.38														.05	.19	4.71
Penstock Camp	San Joaquin																													
Phoenix Dam	do			.55	.53	.14						.95		1.36	.11									.04		.02	.05	.03	.02	3.80
Pilot Creek	Sacramento	.18	T.	.58	.48	.62	.30				T.	1.58	2.60	.10				T.	T.					T.	T.	T.			.27	6.71
Pinchot	Coast																													
Pine Crest	do			.21	3.45	.08						1.70	.42	.05	.73													.18	1.11	7.93
Placerville	Sacramento	.37	.08	.11	.34	.32	.26					1.05		1.14	.28	T.												.08	.04	4.07
Point Lobos	Coast	.05	.60	.40	.10	.07	.04					.55	.48	.36													.04	.02	.18	2.89
Point Loma	do	.36	.01	.62	1.27	.08		.01		.01		.01	.44	.12	.20		.05					T.						.53	.85	4.56
Point Reyes	do	.23	.03	.22	T.	.08	T.				.56	.33	.25	.02	.01												.05	.13	.33	2.24
Polasky	San Joaquin																													
Porterville	do	.01			.97							.37	.03		.42															1.80
Portulaca	do																													
Prattville	Sacramento																													
Priest Valley	Coast			.31							.61			.12	.21												.08	.52	.40	2.25
Quincy	Sacramento	.40	.64		.02	.30	.27					.60	.60	.35																3.18
Red Bluff	do	.58	.03		.03	.12					.81	.15	.23	.07															.18	2.20
Redding	do	.34	.91		.59	.65					.23	.90	.56	.61															.01	4.80
Redlands	Coast			.28	.88	.27						T.	.23	.04	.28	.07					.20				.29		.02	1.02	.30	3.88
Reedley	San Joaquin			1.12							.20			.20																1.52
Represa	Sacramento	.29		.49							.78		.36	.18													.36	.28	.21	2.95
Rialto (near)	Coast		.09	1.50	1.59	.07						.70		2.57		.06					.17				.29	.15	.19	2.07	.28	9.73
Rio Vista	Sacramento	.12	.04	.12	.38	.27	T.					.34	.35	.94														.05	.20	2.81
Riverside	Coast			.52	.58							.22		.29							.03				.13	.02		.85	.16	2.80
Rocklin	Sacramento	.10	.10	.10	.30	.50						.90		.60	.10												T.	.30	.20	3.20
Rohnerville	Coast	.06	.40			.38	.36				1.26	.50	T.	.67	.37	T.	T.	T.								T.	.49			4.49
Sacramento (1)	Sacramento	.04	.04	.32	.52	.01					.19	.08	.10	.10													.04	.33	.11	1.88
Sacramento (2)	do	.13	.11	.36	.57	.01					.22	.25	.10	.30													.04	.34	.16	2.57
St. Helena	Coast	.02	.72	.14	.23		.19				.02	1.13		.89	.04													.04	.23	3.65
Salinas	do	.11		.18	.12	.08	.04					.35	.08	.23	.17													.13	.49	1.98
San Bernardino	do			.35	1.06	.01						.33	.03	.17	.54						.11				.04		.03	1.43	.12	4.22
San Diego	do		.30	1.25	.34							.85	.05	.23	.06										.09	T.	.08	1.61	.06	4.92
San Francisco	do	.12	.43	.48	T.	.04	.02				.66	.36	.43	.08										T.			T.	.10	.30	3.02
San Jacinto	do			.38	.72	.05							.28	.09		.19					.18				.33	.97				3.19
San Jose	do		T.	.52		.01					.45	.21	.15	.21													.02	.05	.40	2.03
San Leandro	do	.05	.11	.43	.03	.07					1.15	.15	.49	.04												T.	T.	.11	.92	3.55
San Luis Obispo	do			.97	.11						.41	.66	.27	.46	.10									.08	.08		.47	.22	1.03	4.86
San Mateo	do	.04	.04	.13	.34	.09						.18		.87	.17														.17	2.03
San Miguel	do			.30	.25							.25		.18											.28			.42	.33	2.01
San Miguel Island	Ocean																													
Sanger	San Joaquin																													
Santa Ana River	Coast																													
Santa Barbara	do			.07	2.31	.03						1.00	.30	.04	.18												.13	.86		4.92
Santa Clara	do		.05	.59	.01	.05	.02				.04	.53	.13	.23												T.		.05	.26	1.96
Santa Cruz	do	.45	.12	.70	.03	.12					.90	.50	1.00		.06												.25	.33	1.17	5.63
Santa Margarita	do			.20	.90							1.00	.25		.40										.13			.26	.52	3.66
Santa Maria	do			.82	.24							1.12		.32														.78	.52	3.80
Santa Monica	do				1.05						.29			.38							.27							.68		2.67
Santa Rosa	do	.03	.40	.15	.10	.36	.02				.12	.68	.39	.40															.10	2.75
Sausalito	do		.57	.24	.07	.11					T.	.52	.56																.15	2.22
Selma	San Joaquin				1.02							.05		.15													.10			1.32
Seven Oaks	Coast																													
Shasta	Sacramento				.39	.26					1.68	.17	2.54																	5.04
Shingle Springs	San Joaquin	2.00	.90	.70	1.20							1.00		.80													.10			6.70
Sierra Madre	Coast		T.	.74	1.85							.80		.74						T.	.05				.11	T.		1.18	.46	5.93
Sierraville	Mountain Lakes				.60	.10						.80		.90																2.40
Sisquoc Ranch	Coast			.40	.95							.82	.20	.43										.38				.53	.63	4.34
Sisson	Sacramento	.82			.10				.12	1.20	.60	.80														.30				3.94
Soledad	Coast			.30	.18							.42	.10	.05												T.		.15	.35	1.55
Sonora	San Joaquin	T.	.10	.25	.55		.11					.95		1.36	.09					T.	.13			.13		T.		.05	.30	4.02
Southeast Farallon	Ocean	.09	.02	.38		.14					.22	.46	.27	.09													.04	.27	.69	2.67
Spreckels	Coast	.02		.13	.19	.14	.09					.46	.12	.11	.23													.17	.45	2.11
Squirrel Inn	do			.51	2.10	.31							1.65		1.79						.19				.33		.10	3.21	.42	11.61
Stirling City	Sacramento				.50							1.05	.80	.10															.05	2.50
Stockton (S. H.)	San Joaquin	T.		.40	.08		.15				T.	.24	.41															.08	.05	1.41
Storey	do			.45								.30																.20		0.95
Suisun	Sacramento	.03		.31								.62		.59													T.		.02	1.57
Summerdale	San Joaquin																													
Summit (1)	Sacramento	1.00	.10	.10	.20		.60					.90	.10	1.50	.50												.30			5.30
Summit (2)	Coast																													
Susanville	Mountain Lakes		25				.05					.20	.04	.16																0.70
Tamarack	Sacramento	1.20			.80	1.40							3.00	2.40	1.20					.30	.40			.60	.80	.10		.80	.60	13.00
Tehachapi	San Joaquin				.51							.40	.11	.34											.18			.05	.01	1.60
Tehama	Sacramento	T.	.50	T.	.25							1.00		.35															T.	2.10
Tejon Rancho	San Joaquin				.75	.40									.94	.02									.39					2.50
Three Rivers	do				.95							.75		.80	.20						.14			T.	.21	.02		.02		3.09
Towle	Sacramento	.80	.30	.35	.31	.74	.72					1.30	.20	.30	.40	.10														5.52
Tracy	San Joaquin	.10			.25	.15						.02		.05														.02	.02	0.61
Tulare	do				1.00							.15		.34													T.			1.49
Tustin (near)	Coast	.10		.18	.58	.34						.08	.36		.15						T.				.20			.47	.97	3.43
Ukiah	do	.41	.60	.06	.10	.14	.11				1.05	.68	.55	.45															.04	4.19
Upland	do			2.02	.33							.54		1.06		.17					.14			.25		.06	.70	.69	.29	6.25
Upper Lake	Sacramento	.10	.62	.07	T.	.16	T.				.84	.38	.48	.28	T.														.06	2.99
Upper Mattole	Coast	.23	.86	.10		.33	.43	.13			.83	3.00	.33	.97	.23		T.		.06								.12	.23	.04		7.89
Vacaville	Sacramento	.20	.16	.21		.05					.41	.04	1.00													T.	.24	.25	.55	3.11
Valley Springs	San Joaquin	.47			.41	.16	.25					1.20	.04	.25	.45													.44	.20	3.87
Visalia	do				.80							.10		.30														.07		1.27
Warner Springs	Coast		.72	.20	1.63	.23						.35		.24		.25					.12				.30		.17	.50		4.71
Wasco	San Joaquin				.84							.22			.19															1.25
Watsonville	Coast		.09	.27	.09	.19					.75	.14	1.32	.15														.46	.98	4.44
Weitchpec	Klamath	.33	.37	.02		.41	.84	T.		.06	.85	.38	.66	.28	.24			.34								.05	.01			5.84
West Branch	Sacramento	.20	2.20	.12	.32	.79	.17				.09	2.39	.43	1.75	T.														T.	8.46
Westley	San Joaquin	.05			.37									.10												.08				0.60
West Point	do	.87		.12	.61	.13	.44					1.04	.04	.93	.91	T.									.16				.04	5.29
West Saticoy	Coast				.90							.85		.12										T.				.25	.88	3.00
Wheatland	Sacramento		.36	.24	.23	.09					.01	.61	.10	.26													.06	.16	.28	2.40
Willows	do	.08	.27	.02	.11	T.					.34	.17	.47	.05														.06	.77	2.34
Yosemite	San Joaquin	.25		.16	.94							1.30		1.05	.18						.04			.20	.07	.02		.10		4.31

TABLE 3.—*Maximum and minimum temperatures at selected stations for February, 1911. District No. 11, California.*

Date.	Lakeview, Oreg.		California.																							
			Alturas.		Barstow.		Bransomb.		Brawley.		Colusa.		Eureka.		Fresno.		Independence.		Los Angeles.		Mount Tamalpais.		Nevada City.		Porterville.		Red Bluff.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	.....	.....	40	23	74	41	47	35	72	42	.....	.....	57	45	63	43	.....	.....	63	46	46	39	51	35	63	53	51	44
2	.....	.....	39	31	72	33	50	41	65	37	.....	.....	47	41	69	48	.....	.....	64	47	47	43	51	38	67	54	55	48
3	.....	.....	38	23	52	46	60	38	66	55	.....	.....	51	38	54	44	.....	.....	61	53	46	41	53	30	65	43	62	43
4	.....	.....	42	12	63	45	56	37	67	51	.....	.....	47	43	60	45	.....	.....	59	51	46	40	50	37	60	45	53	47
5	.....	.....	42	28	68	33	52	34	78	45	.....	.....	48	40	62	41	.....	.....	61	49	42	36	41	37	64	40	51	43
6	.....	.....	35	22	68	36	45	32	69	44	.....	.....	50	37	57	41	.....	.....	62	46	43	34	53	29	60	41	54	40
7	.....	.....	30	− 5	72	34	51	25	70	40	.....	.....	47	33	56	37	.....	.....	60	44	47	37	56	23	63	36	55	34
8	.....	.....	34	− 4	49	31	57	27	72	42	.....	.....	49	36	60	37	.....	.....	66	47	47	40	61	24	64	38	56	34
9	.....	.....	40	4	70	33	52	28	72	45	.....	.....	54	43	62	39	.....	.....	70	49	45	36	58	26	65	37	54	35
10	.....	.....	40	17	71	30	44	32	73	39	.....	.....	51	40	62	37	.....	.....	59	45	43	36	48	33	66	36	50	44
11	.....	.....	40	24	60	34	41	29	68	40	.....	.....	49	38	51	39	.....	.....	51	45	40	32	40	30	56	36	51	41
12	.....	.....	35	0	61	31	38	34	66	44	.....	.....	49	40	58	37	.....	.....	59	42	45	33	41	25	62	36	45	41
13	.....	.....	36	21	65	44	41	30	62	43	.....	.....	45	34	51	37	.....	.....	53	45	40	29	42	31	52	42	49	37
14	.....	.....	35	8	55	35	44	21	63	45	.....	.....	44	33	48	33	.....	.....	54	42	36	28	40	16	50	30	47	29
15	.....	.....	30	−15	62	30	47	20	58	38	.....	.....	47	30	50	29	.....	.....	54	39	44	29	49	13	52	27	50	30
16	.....	.....	34	−16	66	26	48	24	.....	.....	.....	.....	51	34	53	30	.....	.....	59	39	46	34	54	14	53	29	54	30
17	.....	.....	47	− 2	67	24	50	28	65	30	.....	.....	53	42	57	34	.....	.....	64	40	50	39	61	22	59	31	58	40
18	.....	.....	37	11	71	26	60	32	73	35	.....	.....	51	36	59	35	.....	.....	63	44	58	43	61	24	62	33	61	42
19	.....	.....	33	18	68	26	62	35	69	36	.....	.....	52	36	60	36	.....	.....	61	45	51	37	53	26	65	36	56	40
20	.....	.....	37	0	65	39	58	29	67	43	.....	.....	53	35	58	37	.....	.....	58	47	51	35	57	27	60	32	57	37
21	.....	.....	41	0	72	28	58	25	67	38	.....	.....	53	35	62	38	.....	.....	65	41	53	42	59	22	67	32	60	32
22	.....	.....	39	3	66	27	59	25	69	37	.....	.....	50	35	64	36	.....	.....	75	46	55	38	61	23	64	34	60	34
23	.....	.....	35	13	75	27	56	25	71	34	.....	.....	51	35	55	38	.....	.....	64	48	50	36	51	29	64	34	52	42
24	.....	.....	32	6	66	35	57	25	64	48	.....	.....	51	34	57	32	.....	.....	61	46	50	35	60	22	60	34	57	41
25	.....	.....	30	11	67	36	58	30	70	43	.....	.....	46	37	55	36	.....	.....	62	44	40	32	47	24	59	35	52	37
26	.....	.....	29	10	64	25	52	22	65	36	.....	.....	48	32	50	30	.....	.....	54	41	39	29	37	16	60	28	49	33
27	.....	.....	28	13	45	34	48	26	63	36	.....	.....	53	30	53	37	.....	.....	49	39	32	29	44	22	61	36	51	38
28	.....	.....	40	11	69	32	49	31	67	45	.....	.....	56	34	58	40	.....	.....	55	44	35	31	50	24	64	36	46	37
Mns	.....	.....	36.4	9.5	65.5	32.9	51.4	29.3	a67.8	a41.1	.....	.....	50.1	36.6	57.3	37.4	.....	.....	60.2	44.8	45.2	35.5	51.0	25.8	61.0	36.6	53.4	38.3

Date.	California.																									
	Redlands.		Sacramento.		San Diego.		San Francisco.		San Jose.		San Luis Obispo.		Santa Barbara.		Santa Rosa.		Sisson.		Stockton.		Summit.		Susanville.		Yosemite.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	63	36	58	47	60	45	56	48	62	47	67	43	61	46	55	44	33	28	58	47	30	24	41	24	55	24
2	61	38	59	50	65	44	56	50	64	47	63	50	62	52	59	51	39	30	58	47	30	25	46	30	52	25
2	56	47	51	47	61	57	53	49	56	44	57	50	58	53	59	41	40	29	56	45	35	28	43	26	50	25
4	52	47	57	49	60	51	56	49	57	46	57	45	58	49	60	46	51	28	58	44	30	27	45	30	40	29
5	58	43	54	47	60	48	54	48	57	46	56	38	60	44	57	44	32	17	58	46	29	24	41	33	52	22
6	60	41	53	42	58	44	55	45	55	38	57	39	60	40	56	34	32	18	54	41	29	18	41	28	52	23
7	62	34	53	40	59	46	56	42	56	33	58	47	60	40	57	30	42	19	54	38	31	10	33	9	57	21
8	70	35	55	39	64	48	59	42	61	33	68	44	63	40	60	29	40	28	56	33	36	21	30	8	61	23
9	70	38	55	39	63	49	53	44	55	37	60	34	66	36	60	33	33	26	56	37	36	19	32	10	61	21
10	65	37	55	43	59	47	54	45	58	40	54	43	58	40	55	43	31	26	57	40	32	23	47	13	53	22
11	55	45	52	43	59	46	52	42	55	41	52	41	54	46	52	33	32	28	57	40	24	18	47	28	42	28
12	55	34	49	40	56	44	53	43	54	40	55	39	55	40	51	37	35	14	53	40	20	14	42	19	46	9
13	50	38	48	39	57	47	50	43	49	38	54	44	58	47	51	43	28	4	48	45	18	13	41	26	37	29
14	54	40	44	32	55	48	50	39	48	33	46	40	56	42	51	28	34	4	42	32	22	14	32	9	37	10
15	49	33	48	37	52	40	51	39	51	29	51	38	56	38	54	26	45	12	44	31	21	− 2	26	− 4	40	8
16	55	37	51	35	54	34	54	39	55	27	53	38	59	32	56	25	43	18	49	31	24	− 6	23	− 7	52	9
17	64	31	55	37	58	38	60	43	61	32	59	40	61	33	62	35	41	16	54	33	32	17	29	2	52	11
18	65	33	62	39	59	42	67	43	66	41	63	45	68	35	68	32	42	17	58	36	35	19	37	8	54	10
19	63	36	57	40	58	46	57	46	59	37	57	36	58	40	63	34	38	13	56	38	25	15	39	8	52	14
20	56	40	56	38	60	46	58	43	58	33	56	41	58	46	60	28	38	13	56	36	30	13	34	12	54	17
21	63	33	57	37	61	42	60	44	63	33	62	38	60	40	61	28	39	14	54	34	33	10	32	3	58	17
22	70	33	63	39	70	44	61	44	61	34	70	37	67	39	63	28	47	19	55	35	38	17	32	6	61	18
23	69	39	54	41	66	50	59	45	58	39	52	37	63	40	61	28	37	22	56	36	27	19	38	12	55	20
24	51	40	59	41	56	46	59	46	61	38	56	44	64	43	60	32	39	25	58	36	31	16	36	7	54	13
25	55	36	55	40	58	46	53	45	54	34	54	41	64	44	56	49	30	26	54	36	25	17	38	12	49	22
26	50	34	50	32	55	44	50	40	53	33	45	34	54	34	55	26	32	10	52	34	22	− 5	30	4	39	7
27	42	35	44	34	53	44	45	38	49	32	48	39	50	40	48	36	32	13	51	35	21	− 8	32	13	39	19
28	45	32	50	40	59	44	46	40	47	37	50	41	53	39	50	38	42	26	54	38	21	10	39	19	43	15
Means	55.4	37.5	53.6	40.2	59.1	45.4	54.9	43.7	56.5	37.3	56.4	40.9	59.8	41.4	57.1	35.0	37.4	19.4	54.1	38.0	28.1	14.6	36.6	13.7	49.9	18.2

CLIMATOLOGICAL DATA FOR FEBRUARY, 1911.

DISTRICT NO. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor.
THEODORE F. DRAKE, Acting District Editor.

GENERAL SUMMARY.

Although temperatures for the month averaged below the normal, there was about the usual amount of sunshine. There were no well-defined warm or cold periods, the month showing remarkable evenness of temperature from day to day. The precipitation was slightly more than half of the usual amount, but, on account of the mild temperatures which operated to solidify and reduce the depth of the snow blanket, reports indicate that there is about the normal amount of snow remaining on the ground in mountainous sections. Much of the snow now on the ground fell early in the winter and is therefore quite compact and favorably conditioned for gradual melting which will tend to give a late flow of water equal to or exceeding the normal. As there was but little snow on the winter feeding grounds, range stock was enabled to keep in excellent condition. In general, the weather was especially favorable for building operations and early spring farm work.

TEMPERATURE.

The mean temperature for the month was below the normal in all sections of the district, except in the northern valleys of the Flathead country in Montana, where it was slightly above the normal. The deficiency averaged greatest over the high plateau in central and southeastern Oregon, where the unusual number of clear nights favored rapid radiation. Along the Oregon coast, where marked departures are unusual, the mean temperatures were very low compared with the normals, the deficiency in this case being due to the absence of the storms and the accompanying warm southerly winds that characterize February weather along the North Pacific coast. The temperatures were more nearly normal in western Washington.

The deficiency throughout the district was due to uniformly cold weather rather than to extremes of cold, the lowest temperatures recorded being not unusually low for this month.

As determined from the records of 244 stations, the average mean temperature is 29.6°, or 3.3° below the district average. The mean temperatures ranged between 43.2° at Newport on the Oregon coast, and 8.1° at Snake River, Wyo., on the headwaters of the Snake. The highest temperature recorded, 69°, occurred at Gold Basin, Wash., on the 1st, and the lowest, −33°, on the 27th at Pleasant Valley, Mont. East of the Cascade Mountains, the highest temperatures occurred during the first decade, but west of the mountains they occurred generally during the latter part of the month. The last week was the coldest period.

PRECIPITATION.

The precipitation for the month for the entire district averaged about 54 per cent of the normal, the greatest deficiency being along the coast, where it reached 10 inches in southern Oregon. A few scattered stations in the eastern portion of the district report a slight excess, but on the whole the most striking peculiarity of the month's weather was the remarkably light precipitation.

The precipitation was well distributed throughout the month, the heaviest falls occurring generally from the 10th to the 15th.

The average as determined from the records of 332 stations, is 2.09 inches, which is 1.83 inches below the normal amount for the district. The greatest precipitation for the month was 12 inches at Longmire Springs, Wash., and the least was 0.15 inch at Blalock, Oreg., and also at Loon Creek, Idaho. The greatest amount recorded in 24 hours was 3.20 inches on the 13th at Glenora, Oreg., in the coast drainage area. Other heavy 24-hour falls were: 2.78 inches on the 13th at Spirit Lake, Idaho, and 2.10 inches at Port Orford, Oreg., on the 1st.

THE RIVERS.

The rivers throughout the district were below the normal for the month. With the exception of the Snake River the stages were uniformly lower than those for January. The highest stages were reported near the first of the month and the lowest on the last few days. In most cases the lowest occurred on the 28th.

The Columbia River averaged 1.8 feet, which is 1.2 feet below the normal for the month, being 2.3 feet below at The Dalles and 1.8 feet below at Vancouver. Compared with the January mean stage, the average was 0.3 foot lower.

The Willamette River averaged 5.2 feet, which is 2.1 feet below the February normal, being 3.2 feet below at Wilsonville and 2.8 feet below at Salem. The highest stage reported was 11.5 feet at Wilsonville on the 3d. A stage of 16.2 feet was reached at McMinnville on the Yamhill River on the 14th.

The Snake River averaged 3.4 feet, which is exactly normal. The highest stage reported was 7.2 feet at Lewiston on the 3d and the lowest was 1.6 feet at the same place on the 28th.

Preliminary work has begun on the north jetty at the mouth of the Columbia River. This is the final step toward the completion of the vast works necessary to permanently insure a deep channel for the river. Expert engineers claim that every foot of construction on the north jetty is equivalent to three on the south jetty, as it will approach the old jetty at a rapid angle and thereby

narrow and consequently deepen the main channel by forcing it to scour itself out. It has been decided to have the machine and repair shops retained at Fort Stevens, on the Oregon side, because of the heavy expenditures involved in their removal to the Washington shore.

MISCELLANEOUS.

Many of the observers reported that the month was very bright and cold, with but little moisture, most of which fell in the form of snow, so that in many localities the depth of snow on the ground is greater than usual, notwithstanding the deficiency in precipitation. During the first five days of the month a severe storm prevailed in western Montana which blocked the traffic on the Great Northern Railway between Essex and Summit, immediately west of the Continental Divide. Hail and sleet occurred in many places west of the Cascades on various dates. Solar halos were recorded at a few places on the 7th, and lunar halos were observed in many places on the 6th, 7th, 8th, and 9th. Thunderstorms occurred at Corvallis, Oreg., on the 11th, and at Port Orford, Oreg., on the 13th. The following high winds were recorded: North Head, Wash., 84 miles southeast, on the 12th; Tatoosh Island, Wash., 62 miles southeast, on the 13th; Seattle, Wash., 48 miles south, on the 12th; Pocatello, Idaho, 42 miles southwest, on the 2d; Walla Walla, Wash., 39 miles southeast, on the 12th; and Lewiston, Idaho, 34 miles west, on the 2d. The prevailing direction of the wind was from the southwest.

IRRIGATION IN IDAHO.

By S. H. HAYS.

Idaho during the last five years has probably been the scene of greater irrigation development than any of the other Western States. Owing to special advantages in the way of water supply, private investors as well as the Government have been attracted to the southern portion of the State. The Boise-Payette and Minidoka projects in the southern portion of the State are among the most notable of those undertaken by the Government.

The so-called Carey Act, which has been largely responsible for Idaho irrigation development, was first enacted in 1894, and provided that 1,000,000 acres of land should be granted to each of the States in the arid region conditioned upon their securing the irrigation and reclamation of these lands. In 1896 it was provided that the State might create a lien against the separate legal subdivisions of land to be reclaimed for the cost and expenses of reclamation. Originally the act expired by a 10-year limitation, which prevented any large use being made of it, but by the act of March 3, 1901, it was provided that the 10-year period of time should be so extended that the State might have 10 years in which to reclaim each project. In order to carry out the terms of the act, it was provided by State legislation that the State Board of Land Commissioners should consider the proposals of private persons or corporations for the construction of the necessary irrigation works, that they should fix the amount of the lien upon the land and should provide for the construction of the works under State supervision and the ultimate turning over of the works to the settlers. This plan provided State supervision, construction by a private corporation, and ultimate municipal ownership. The State statute being broad in its terms permitted the State Land Board a wide latitude in making contracts so that the board might make each contract to fit the particular conditions in each case.

TWIN FALLS SOUTH SIDE PROJECT.

The most extensive of the earlier works to be constructed under the terms of this act in the State of Idaho was the project of the Twin Falls Land & Water Co. This company entered into a contract with the State of Idaho in the year 1903 for the construction of the irrigation system now covered by what is generally known as the Twin Falls South Side Project. The contract called for the construction of a dam in Snake River at the present town of Milner, a main canal approximately 80 miles long, and an elaborate system of laterals. Construction was rushed as fast as possible, and water was first turned into the canal March 1, 1905. The dam by which water is diverted from Snake River is approximately 2,000 feet long and 80 feet high at its highest point. It is of the type known as rock-filled, being constructed of large bowlders with earth and gravel sluiced in. The width up and down stream of the rock section is approximately 100 feet, the total width with the earth facing being 450 feet. The dam has been in use for five years and has given excellent satisfaction.

Two small rocky islands in the center of the stream form a part of the dam. On top of one of these islands are 99 gates, forming the principal spillway. On top of the other island a concrete weir with flashboards furnishes an additional spillway for extreme high water. The entire irrigation system called for under the contract with the State was constructed within the five-year period, and the works were in the fall of 1909 turned over to the settlers, a corporation composed of the settlers having been organized for that purpose. These works cover an area of 215,000 acres, approximately 150,000 acres of which are already in cultivation.

The growth of towns has been rapid. In colonizing the tract it was soon found that unless towns were established the settlement of the country would be greatly retarded. The town of Twin Falls, the principal town on the tract, which had less than 200 inhabitants on the 1st of March, 1905, now has a population of over 7,500. It has electric lights, telephone system, waterworks, an excellent sewer system, and is now paving a considerable portion of its streets. A court house, costing $150,000, is in the course of construction; two hotels, costing to exceed $100,000 each, are already built and open to the public; and at the last session of Congress $10,000 was appropriated for the purpose of purchasing a site for a Federal building.

Original landholdings on the tract averaged 120 acres to each farm. The average landholding is now 68 acres, a change that necessarily results from the fact that irrigation calls for intensive cultivation. There are now living in towns on this tract in the neighborhood of 10,000 people.

TWIN FALLS NORTH SIDE PROJECT.

The next in point of time and the greatest in magnitude is the project of the Twin Falls North Side Land & Water Co. The works of this company take water from the north end of the Milner Dam above described through a canal extending in a northwesterly direction a distance of 97 miles and having also a lateral system covering several hundred miles. The area under this canal is approximately 230,000 acres. Very heavy work was encountered in building the first 4 miles of the main canal on this project, and in order to secure efficient service this section of the canal was lined with concrete, giving it a capacity of 3,250 cubic feet per second. The normal flow of Snake River in ordinary years is 6,000 second-feet up to the 15th or 20th of July. In order to supplement this supply,

160,000 acre-feet of water is to be impounded in reservoirs for use on this project.

Water was first turned into the canals on this project during the season of 1909, and figures as to the acreage under cultivation are not yet available. Like the South Side Project, the original landholdings averaged about 120 acres, but the average present size of farms is not in excess of 80 acres.

The principal towns on the project are Jerome and Wendell, each having a population of between a thousand and fifteen hundred. Each of these towns has hotels costing from $60,000 to $70,000, electric lights, waterworks, and telephone service. They have railroad connection over the Idaho Southern Railroad with the Oregon Short Line at Gooding, a thriving town of 1,500 people just at the edge of the project, and the Oregon Short Line is now building an additional line of road through the tract extending from Bliss to Rupert. The towns of Bliss and Hagerman, with a population of 500 each, were already established before the building of the irrigation works. The company constructing this project has a completely equipped agricultural department in charge of experts whose business it is to study the local conditions and advise the farmers as to the best methods to be used in the cultivation of crops. Observations as to weather conditions are also taken in connection with this department.

SALMON RIVER PROJECT.

The main feature of this project is the great Salmon River Dam, a concrete masonry structure rising to a height of 220 feet above the rock foundation upon which it stands. Its upstream face is curved in plan to a radius of 225 feet, thus forming a horizontal arch with abutments in the solid rock sides of the canyon. It is so constructed that an ample factor of safety is obtained. The site is particularly adapted to this type of dam. A dike of especially hard lava crosses the canyon at this point. The Salmon Falls River, from which the water is taken, flows through a box canyon with lava sides. Above the dam there is a widening of this canyon so that the reservoir will have a superficial area of 3,500 acres when the water level in it is at the maximum flow line. The outlet from the reservoir is a concrete-lined tunnel having a sectional area of 110 square feet and a capacity of 1,250 cubic feet per second. The mouth of the tunnel is so located that 180,000 acre-feet of the waters impounded in the reservoir can be utilized when the reservoir is filled. The outlet tunnel turns immediately beyond the portal and extends approximately 1,300 feet parallel with the canyon. Beyond this tunnel is 2,242 feet of open canal that terminates in the second tunnel 2,258 feet long.

The main canal has a capacity of 1,250 cubic feet per second. The canals already constructed cover 100,000 acres of this project. Seventy per cent of the dam at this time is already constructed. Water was furnished for the use of settlers during the past season. Eighty thousand acres of the land have already been taken by settlers.

This most interesting work has been in charge of F. C. Horn, constructing engineer, and A. J. Wiley, consulting engineer, both of whom have heretofore been employed in similar capacities by the United States Reclamation Service.

TWIN FALLS OAKLEY PROJECT.

The construction of this project calls for the building of a dam across Goose Creek at a point about 3 miles above the town of Oakley. There is an unusually fine body of land in this locality, and the building of irrigation works to cover this tract has been under consideration by various persons at different times for the last 20 years.

The dam now under construction is of the earth type with a concrete core wall. Its total length along the top is a little over 1,100 feet. The dam has a total height at the highest point of 142 feet, being the highest dam of this type in this country. The canals in connection with this work will cover an area of 60,000 acres. With the exception of probably 5,000 acres, the land is already taken.

The plans for this project call for one of the most effective and up-to-date irrigation plants yet constructed in the State. The works are particularly designed to procure a high duty of water.

The general character of the soil on all of the projects named above is what is commonly known as volcanic ash, a particularly fertile and valuable soil especially suitable for alfalfa which when planted acts as a fertilizer and adds the necessary humus.

The water right on these projects to which the settler is entitled varies from one-hundredth to one-eightieth of a second-foot per acre, but this is a maximum only, the settler being entitled to so much water only as his crops require under a rotation system. An economical and efficient use of water is provided for. The duty of water varies with the nature of the crop and the character of the soil. An excellent crop of oats has been raised with one irrigation, but in a majority of years probably two irrigations would be required for grain crops. Alfalfa and other grass crops require more water. On most of the area included in these projects three crops of alfalfa are annually obtained. The Oakley Project has been found specially valuable for sugar beets. All of the tracts are suitable for general farming.

These projects are notable for speedy construction, rapid settlement, and quick and efficient reclamation.

TABLE 1.—*Climatological data for February, 1911. District No. 12, Columbia Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana.																				
Anaconda	Deer Lodge	5,300	10	18.8	.....	43	11	−11	28	35	0.67	.....	.....	8.1	...	15	10	3	.....	C. D. Demond.
Bison Mountain	Powell	7,240	2	.....	.....	.....	.....	.....	.....	.....	1.96	.....	0.40	23.0	8	11	11	6	.....	C. H. Anderson.
Butte	Silver Bow	5,716	17	19.0	− 5.5	42	11	− 7	28	33	0.60	− 0.22	0.20	6.0	5	14	4	10	nw.	J. R. Wharton
Columbia Falls	Flathead	3,100	16	24.8[f]	+ 0.6	42	17	1	28	27[f]	.....	.....	.....	.....	...	...	...	...	.....	Mrs. I. M. Kennedy.
Como§**	Ravalli	.....	3	24.0	.....	42	10	− 4	27	26	0.50	.....	0.20	7.5	5	15	5	8	.....	Hiram Platt.
East Anaconda§	Deer Lodge	5,500	6	20.2	.....	46	11	− 4	27†	30	0.81	.....	0.61	7.4	7	15	10	3	w.	C. D. Demond.
Fortine	Lincoln	2,975	6	22.0	.....	40	10†	−16	28	51	1.03	.....	0.23	14.0	9	10	4	14	w.	Mike Petery.
Hamilton	Ravalli	3,575	8	25.9	.....	42	5	3	27†	28	0.23	.....	0.10	3.0	3	12	15	1	e.	Bitter Root Valley Ir. Co.
Hat Creek	Powell	6,000	2	.....	.....	.....	.....	.....	.....	.....	0.98	.....	0.18	14.2	10	10	10	8	w.	M. K. Landreth.
Kalispell	Flathead	2,965	13	25.0	+ 1.2	40	5	− 4	27	31	0.48	− 0.98	0.36	5.0	6	9	9	10	w.	Weather Bureau.
Lost Creek	Deer Lodge	5,200	2	.....	.....	.....	.....	.....	.....	.....	0.71	.....	0.45	9.0	3	20	3	5	nw.	Frank Henault.
McGinnis Meadows	Lincoln	.....	2	22.4	.....	46	4†	−20	28	60	0.91	.....	0.19	9.9	10	10	7	11	s.	H. L. Bebee.
Missoula	Missoula	3,225	32	24.4	0.0	42	1	− 3	28	25	0.41	− 0.47	0.22	.....	5	...	...	...	sw.	Weather Bureau.
Ophir	Powell	8,800	2	.....	.....	.....	.....	.....	.....	.....	0.69	.....	0.22	7.5	4	10	16	2	w.	E. S. Wilton.
Ovando§§	do	4,207	12	13.2	− 5.1	35	8	−26	28	46	1.45	− 0.45	0.40	14.5	11	0	28	0	w.	S. B. Muchmore.
Philipsburg	Granite	5,275	8	18.6[f]	.....	49	11	−18	28	45[f]	0.75	.....	0.30	10.5	4	14[f]	3[f]	5[f]	sw.	G. T. Bramble.
Plains	Sanders	2,475	13	25.0	− 2.0	50	12	− 3	27†	34	0.30	− 0.37	0.30	3.0	1	17	0	11	sw.	M. H. Pierce.
Pleasant Valley	Flathead	3,500	4	17.7	.....	53	10	−33	27	70	1.82	.....	0.70	17.0	9	12	11	5	w.	A. D. Stillman.
Polson	do	2,920	4	28.0	.....	54	10	− 4	28	33	0.62	.....	0.40	9.1	5	...	...	...	.....	F. P. Brown.
Proctor	do	2,800	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	C. E. Proctor.
St. Ignatius	Missoula	2,700	6	24.6[e]	.....	45	1	−15	28	36[e]	0.31	.....	0.31	3.0	1	12[e]	3[e]	10[e]	s.	U. S. Reclamation Service.
St. Regis	do	2,650	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	R. D. Lee.
Saltese	do	3,600	7	.....	.....	.....	.....	.....	.....	.....	2.28	.....	0.72	28.0	5	21	0	7	w.	E. K. Tarbox.
Snowshoe	Lincoln	4,500	5	20.6	.....	38	11	− 1	27	24	3.19	.....	0.60	42.4	14	9	3	16	w.	J. C. Riter.
Troy	do	1,880	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	W. E. Milnor.
Willow Glen stck. farm§	Deer Lodge	5,064	1	.....	.....	49[a]	11	.....	.....	.....	0.34	.....	0.25	4.0	4	16	8	4	sw.	G. E. Luce.
Wyoming.																				
Afton	Uinta	6,200	7	11.2	− 8.0	41	12	−27	16	55	1.13	− 0.47	0.27	11.5	8	18	2	8	.....	A. V. Call.
Alta	do	7,000	1	12.0	.....	36	1†	−24	17	49	0.68	.....	0.30	6.3	5	13	3	12	sw.	Mrs. Lucy Brown.
Bedford	do	5,900	11	11.0	− 8.1	47	11	−26	16†	....	1.22	− 0.46	0.44	12.2	6	15	6	7	w.	C. G. Heiner.
Belcher River	Yellowstone Park	.....	...	.....	.....	.....	.....	.....	.....	.....	2.70	.....	1.20	27.0	5	...	...	...	.....	U. S. Army.
Snake River	do	7,000	5	8.1	.....	35	1	−30	17†	57	0.60	.....	0.40	6.0	2	11	10	7	w.	Do.
Nevada.																				
San Jacinto	Elko	.....	6	17.5	.....	41	1	−18	16	43	0.33	.....	0.19	8.5	2	17	6	5	sw.	Mose Jones.
Utah.																				
Standrod	Boxelder	.....	6	21.7	.....	41	2	− 4	27	30	0.88	.....	0.16	17.0	13	17	3	8	nw.	T. B. Jones.
Idaho.																				
Albion	Cassia	4,650	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	C. E. Bocock.
Alpha	Boise	.....	...	13.4[e]	.....	38	7	− 23	28	55[e]	.....	.....	.....	.....	...	...	...	...	sw.	J. W. King.
Blackfoot‖	Bingham	4,503	16	20.8	− 5.3	43	11	− 6	17	30	0.47	− 0.34	0.18	8.1	6	9	15	4	ne.	E. A. Dowd.
Blackfoot Dam	do	.....	1	10.5	.....	42	24	− 31	17	49	.....	.....	.....	.....	...	16	2	10	nw.	N. W. Irsfield.
Bocks Ranch	Elmore	3,500	2	.....	.....	.....	.....	.....	.....	.....	0.76	.....	0.27	7.5	6	...	...	...	.....	William Bock.
Bogus Creek	Boise	4,200	3	.....	.....	.....	.....	.....	.....	.....	1.08	.....	0.26	15.0	8	...	...	...	.....	F. P. Ingraham.
Boise	Ada	2,739	26	30.0	− 3.8	50	11	14	3	29	0.72	− 0.50	0.19	9.1	12	5	12	11	se.	U. S. Weather Bureau.
Bonners Ferry	Bonner	1,850	4	26.8	.....	44	21†	− 1	27	44	0.80	.....	0.43	4.0	5	18	6	4	sw.	W. H. Heideman.
Boulder Mine	Boise	4,800	2	.....	.....	.....	.....	.....	.....	.....	2.71	.....	0.62	31.8	10	23	4	1	.....	Patrick Moriarty.
Buhl	Twin Falls	3,800	5	26.9	.....	50	1†	4	17	32	0.52	.....	0.20	4.5	8	7	19	2	e.	Hugh Taylor.
Caldwell	Canyon	2,372	7	30.1	.....	49	11	5	24	31	0.89	.....	0.20	9.6	9	4	15	9	w.	Dr. W. J. Boone.
Camas	Fremont	4,815	3	17.1	.....	36	4	− 5	8†	36	0.62	.....	0.30	2.4	6	...	...	...	sw.	Mrs. Edna Faulkner.
Cambridge	Washington	2,651	15	21.8	− 5.3	40	6†	− 4	8	35	0.84	− 1.34	0.45	7.6	4	13	6	9	nw.	Chas. H. Shepherd.
Cedar Creek Dam‖	Twin Falls	.....	1	.....	.....	.....	.....	.....	.....	.....	1.70	.....	0.75	19.5	5	7	12	9	se.	Robert Hoffman.
Chesterfield	Bannock	5,424	15	14.6	− 5.5	43	11	− 27	17	48	0.59	− 0.37	0.22	13.0	6	16	5	7	w.	Chas. S. West.
Coeur d'Alene	Kootenai	2,157	19	29.4[d]	+ 0.3	41	10†	10	21†	29[d]	1.17	− 1.09	0.25	17.2	10	...	...	...	.....	Jos. T. Scott.
Cottonwood Creek	Boise	4,000	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Frank Hedrick.
Culdesac	Nez Perce	1,520	3	29.8	.....	45	13	9	26	30	1.82	.....	0.70	14.5	5	11	7	10	.....	R. R. Richmond.
Deary	Latah	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	H. P. Henry.
Dent	Clearwater	1,350	5	32.2[d]	.....	50	28	9	28	41[d]	.....	.....	.....	.....	...	...	...	...	.....	Emil Schuessler.
Driggs	Fremont	6,097	4	10.4	.....	38	10	− 25	17	49	0.21	.....	0.12	4.0	3	9	9	10	sw.	Walter H. Durrant.
Edie	do	.....	2	13.1	.....	39	1	− 11	22	33	.....	.....	.....	.....	...	18	6	4	s.	Geo. B. Edie.
Emmett	Canyon	2,350	5	31.3	.....	47	11	11	24	26	0.43	.....	0.12	6.2	8	8	10	10	w.	C. P. Kar.
Forney	Lemhi	.....	11	17.6	.....	48	11	− 18	28	47	0.22	.....	0.09	5.2	4	12	11	5	n.	M. B. Merritt.
Garden Valley	Boise	3,600	6	.....	.....	.....	.....	.....	.....	.....	0.40	.....	0.19	7.4	3	16	9	3	nw.	Mrs. Gertrude M. Ross.
Garnet	Elmore	2,575	12	31.2	− 6.1	56	11	10	24	29	0.48	− 0.35	0.22	7.3	6	15	2	11	e.	Asa A. Kenison.
Glenns Ferry	do	2,569	3	29.0	.....	53	11	8	14	29	0.51	.....	0.30	4.5	4	18	5	5	e.	I. E. Perkins.
Gooding	Lincoln	3,572	2	24.8	.....	47	11	0	27	27	0.43	.....	0.21	8.3	5	11	10	7	e.	John Krall, jr.
Grand Forks	Shoshone	3,000	2	22.8	.....	45	10	− 11	27	45	2.92	.....	0.66	25.7	8	13	3	12	w.	Henry Kottkey.
Grandview	Owyhee	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	N. G. Massey.
Grimes Pass‖	Boise	5,200	2	.....	.....	.....	.....	.....	.....	.....	1.33	.....	0.27	20.2	11	...	...	...	.....	Joseph M. Clarke.
Guffey	Owyhee	2,381	3	32.8	.....	52	11	12	24	29	0.59	.....	0.17	6.1	7	12	15	1	s.	Fred Perry.
Hailey	Blaine	5,347	6	17.4	.....	40	1	− 7	17	31	1.38	.....	0.53	16.3	6	15	10	3	ne.	U. S. Forest Service.
Hotspring	Owyhee	2,752	6	29.8	.....	54	11	7	3	30	0.60	.....	0.28	7.0	3	13	7	8	.....	J. M. Waterhouse.
Idaho City	Boise	4,000	10	.....	.....	.....	.....	.....	.....	.....	1.29	− 1.61	0.53	17.2	...	...	...	...	.....	Mrs. Emma L. Hammer.
Idaho Falls	Bonneville	4,742	17	20.2	− 0.9	45	11	− 10	28	41	0.85	− 0.40	0.22	9.0	7	19	4	5	ne.	Dr. T. M. Bridges.
Indian Valley‖	Adams	2,999	3	.....	.....	.....	.....	.....	.....	.....	0.95	.....	0.43	7.3	5	13	6	9	n.	A. M. Henke.
Irwin	Bonneville	6,500	2	17.0	.....	41	11	− 13	7	39	0.61	.....	0.13	5.1	7	9	5	14	e.	Eva Johnston.
Kellogg‖	Shoshone	2,305	6	27.0	.....	46	10	4	17†	36	2.39	.....	0.75	26.6	12	13	1	14	sw.	W. McM. Huff.
Kirkham	Boise	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Mrs. Josie B. West.
Kooskia	Idaho	1,261	3	31.3	.....	47	16†	9	28	33	0.36	.....	0.16	6.0	3	9	7	12	.....	U. S. Forest Service.
Lakeview	Bonner	2,250	14	28.4	− 2.3	41	21	7	27	31	1.50	− 1.18	0.60	21.0	10	9	0	19	nw.	E. D. Faust.
Landore	Adams	5,300	6	19.6	.....	40	4†	− 6	27	38	3.40	.....	1.43	53.3	10	15	8	5	.....	Mrs. Emma L. Brown.
Lewiston	Nez Perce	757	24	34.8	− 1.4	49	1	18	28	24	0.53	− 0.81	0.21	3.4	9	7	7	14	e.	U. S. Weather Bureau.
Little Camas	Elmore	5,000	1	.....	.....	.....	.....	.....	.....	.....	0.87	.....	0.25	16.0	8	11	14	3	w.	Solon McCoy.
Long Gulch	do	4,500	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Mrs. Elizabeth A. Hjort.
Loon Creek	Custer	6,000	2	13.8	.....	38	10†	− 22	28	47	0.81	.....	0.21	.....	7	11	9	8	nw.	Mrs. Mary Williams.
Mackay‖	do	5,897	4	12.4	.....	35	2†	− 10	16	35	0.15	.....	0.06	5.0	3	19	5	4	nw.	U. S. Forest Service.
Meadows	Adams	3,950	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Chas. A. Hackney.
Meridian	Ada	2,657	....	30.1	.....	48	11	9	24	30	0.79	.....	0.17	6.8	10	6	15	7	se.	A. W. Garrett.
Mesa‖	Adams	3,275	1	23.1	.....	41	21	1	8	34	1.50	.....	0.71	10.9	6	...	...	...	n.	I. S. Carter.
Middle Fork	Idaho	1,250	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	T. S. Rackliff.
Milner	Twin Falls	4,110	8	22.2[b]	.....	48	11	− 1	17	34[b]	.....	.....	.....	.....	...	11	9	8	e.	Jas. K. Young.
Moscow	Latah	2,748	20	27.2	− 2.8	40	1	5	3	28	1.08	− 1.02	0.40	12.1	8	10	9	9	se.	University of Idaho.
Mountainhome	Elmore	3,150	5	25.6	.....	49	11	0	14	34	0.58	.....	0.20	11.0	6	...	...	...	se.	Mrs. Ellen Manion.
Murtaugh‖	Twin Falls	.....	5	21.2[a]	.....	51	11	− 8	16	39[a]	.....	.....	.....	17.0	5	16	8	4	.....	J. E. Steinour.
Nez Perce	Lewis	3,082	2	22.7	.....	43	11	− 10	28	40	.....	.....	.....	22.0	....	12	10	6	.....	P. Mitchell.
Oakley	Cassia	4,700	18	24.0	− 7.2	50	11	− 2	17	41	0.85	+ 0.02	0.35	7.0	6	15	7	6	s.	John Adams.
O'Hara Bar	Idaho	1,400	1	33.2	.....	51	12	13	28	30	1.90	.....	0.50	18.0	6	18	8	2	.....	J. D. Agnew.
Orofino	Clearwater	1,027	6	32.0	.....	49	8†	9	28	36	1.63	.....	0.46	19.3	9	10	13	5	.....	Geo. Alteneder.

TABLE 1.—*Climatological data for February, 1911. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Idaho—Continued.																				
Payette	Canyon	2,159	21	29.8	− 3.5	45	2	11	8	28	0.27	− 1.09	0.14	3.2	6	12	10	6	n.	E. F. Allen.
Peaceful Valley	do	2,325	1					7	24		0.53		0.15	4.3	8	19	7	2	se.	J. W. Newton.
Pebble	Bannock	5,277	2	16.7		48	1	− 25	17	46	0.90		0.30	10.8	9	18	4	6	sw.	Mrs. Fannie Say.
Pierson	Custer	7,000	1								1.50		0.82	12.0	3	18	1	9	s.	D. P. Clarke.
Pine‖	Elmore	4,100	2								0.59		0.43	13.0	2	14	7	7		Mrs. Jennie Potter.
Pleasant Valley	Ada	3,000	4	27.4		48	11	5	24†	30	0.64		0.17	8.7	8	13	5	10	se.	C. E. Friedrich.
Pocatello	Bannock	4,483	12	23.2	− 4.9	45	11	− 2	27	33	1.50	+ 0.65	0.35	14.0	9	11	5	12	se.	U. S. Weather Bureau.
Poplar	Bonneville		1																	C. M. Lawrence.
Porthill	Bonner	1,665	22	26.0	− 1.1	44	3	− 4	28	37	0.45	− 1.53	0.28	5.5	4	13	9	6		H. A. French.
Powers Ranch	Boise	4,300	3								2.16		0.38	19.0	12	14	0	14		Mrs. Mary French.
Pyle Creek	do	3,100	1								2.68		1.54	10.6	7	14	6	8	s.	P. V. Smith.
Rattlesnake Creek	Elmore	4,000	2								1.41		0.52	10.2	7	10	8	10	w.	R. M. Green.
Richfield	Lincoln		1	19.6		41	5	− 9	17	35	0.42		0.20	5.0	4	14	12	2	e.	Idaho Irrigation Co.
Roseworth	Twin Falls		1								0.31		0.15	9.4	5	0	20	8	sw.	D. B. Hartwell.
Roseberry	Boise																			P. V. Lucas.
Ruby Creek	do	4,500	3								1.72		0.43	22.3	11	10	12	6	w.	O. A. Hatter.
Rupert	Lincoln	4,204	5	23.0		48	1†	− 5	14†	42	0.69		0.18	17.1	11	15	4	9	sw.	Will Parry.
St. Maries	Kootenai	2,263	13	27.3	− 5.0	47	10	− 4	28	47	1.85	− 0.69	0.48	25.7	12	12	5	11	nw.	J. S. Turnbull.
Salmon	Lemhi	4,040	6	15.8		42	1	− 10	28	29	0.21		0.07	4.1	4	20	8	0	n.	B. C. d'Easum.
Salmon River Dam	Twin Falls		3	23.2		46	11	− 4	16	39	0.56		0.31	10.2	9	9	2	17	nw.	A. M. Gilbert.
Sandpoint	Bonner	2,086		26.4		42	12†	1	24	40	2.13		0.46	10.4	6	10	4	14	s.	J. H. Edgerton.
Sheep Hill	Boise	5,000	2								1.63		0.51	20.5	11					C. M. Gardner.
Shoshone	Lincoln	3,968	3	23.0		45	11	− 1	17	28	0.87		0.40	19.3	5	10	15	3	e.	O. A. Truman.
Silver City	Owyhee	6,280	4								1.78		0.39	22.8	12	9	9	10	s.	A. D. Bradfield.
Smith Prairie	Elmore	5,200	1								1.49		0.39	16.3	9					W. W. Newell.
Smith Ranger Station	Bonner	1,080																	se.	T. D. Crittenden.
Soldier Creek	Blaine		1	18.2		40	4†	− 8	17	36				21.2	4	12	11	5	w.	J. E. Minear.
Spirit Lake	Kootenai		2	22.9		48	22	− 9	28	54	4.23		2.78	24.0	4	22	3	3	ne.	M. C. Krause.
Springfield	Bingham	4,420	2	19.6		43	11	− 10	27	39	0.64		0.22	7.8	5	12	11	5	ne.	Mrs. W. A. Edwards.
Sugar‖	Fremont		4	17.2		44	12	− 10	17	40	0.49		0.27	7.0	5	12	9	7	sw.	Utah-Idaho Sugar Co.
Sunnyside	Elmore		2	25.8		46	11	2	16	31									se.	E. A. Wilmot.
Tripod Mountain	Boise	4,300	2								1.22		0.33	11.3	7	15	5	8		Mrs. Verna Paddock.
Twin Falls	Twin Falls	3,825	6	25.0		52	11	1	16†	33	0.74		0.31	5.6	4	10	16	2	se.	J. A. Waters.
Vernon	Fremont		14	15.8	− 6.0	40	11	−15	17	45	1.29	− 0.26	1.20	15.8	4	17	6	5	e.	A. M. Slatery.
Wallace	Shoshone	2,728	4	26.4		43	11	4	27	27	3.11		0.77		15				e.	U. S. Weather Bureau.
Wendell	Lincoln	3,400	3	26.6		50	11	2	14	29	0.18		0.07	4.0	3	12	10	6	e.	C. L. Dingler.
Washington.																				
Aberdeen	Chehalis	162	20	39.1	− 1.9	55	27	24	2	26	4.93	− 5.30	1.05	3.5	13	0	24	4	e.	C. S. Weatherwax.
Anacortes	Skagit	60	17	38.8		55	10	18	2	30	1.75	− 1.19	0.37	1.5	9	13	11	4		Douglas Allmond.
Baker	do	200	5	37.4		58	28	19	2	32	3.37		1.07	9.5	4	10	4	14		Robt. M. White.
Bellingham	Whatcom	60	16	38.0	− 3.7	57	22	13	2	31	2.46	− 0.66	0.75	T.	10	15	6	7		Sanford B. Mayhew.
Bellingham (near)	do			37.5		52	11†	12	2†	24	1.94		0.47	T.	10	13	5	10	ne.	U. S. Bu. Plant Industry.
Blaine	do	57	14	36.9	− 0.7	52	27	15	2	27	1.67	− 2.81	0.42	2.0	12	6	16	6	ne.	John W. Sheets.
Blewett	Chelan	2,200	1								1.90		0.50	19.0	8	16[b]	0[b]	4[b]		John Burmeister.
Bremerton	Kitsap	30									2.48		0.84		11					U. S. Navy Yard.
Brewster	Okanogan	1,620	1	25.2		40	11	− 1	2	34	0.98		0.38	9.5	6	15	8	5	ne.	Mrs. H. F. Bertram.
Bumping Lake	Yakima	3,400																		
Cashmere	Chelan	960									0.89		0.30	9.5	7	16	5	7	se.	Valley Power Co.
Cedar River	King	535	4								2.81		0.91		11	11	2	15		George Landsburg.
Centralia	Lewis	212	18	38.8	− 1.7	63	23	15	28	39	3.31	− 1.23	1.20	1.0	11	11	8	9	s.	I. S. Turner.
Cheney	Spokane	2,351	12	27.4		42	6†	9[a]	16	26	0.77	− 0.57	0.25	6.7	10	12	0	16	s.	J. E. Buchanan.
Clealum	Kittitas	1,930	12	27.2	− 2.8	46	8	1	16	37	1.19	− 2.35	0.27	16.0	11	14	7	7	ne.	J. A. Balmer.
Clearbrook	Whatcom	140	8	34.6		54	28	5	2	32	2.24	− 0.24	0.61	3.0	9	7	10	11	ne.	Geo. Gibbs.
Colfax	Whitman	2,300	22	29.0	− 4.8	45	1†	6	3	35	1.56	− 0.17	0.82		7					W. H. James.
Colville	Stevens	1,635	11	26.4	− 1.2	44	20	− 1	27	41	0.93	− 0.80	0.42	5.0	5	12	2	14	sw.	W. L. Sax.
Conconully	Okanogan	2,300	11	23.0	− 3.4	48	27	−11	2	45	2.55	+ 1.33	1.10	23.0	8	9	5	14		Wm. Baines.
Crescent	Lincoln	2,250	11																	
Davenport	do	2,450	2																	
Dayton	Columbia	1,700	25	30.6	− 3.9	51	10†	3	28	29	1.89	− 0.93	0.61	15.0	11	7	7	14		W. W. Hendron.
Detroit	Mason	30	3	38.6	− 0.8	54	19†	24	4	26	2.37		0.62	T.	12	11	9	8	s.	Walter O. Eckert.
Dixie	Walla Walla	5,000	2								6.22		1.65	57.0	12	7	4	17	se.	T. Z. Andrews.
Duckabush	Jefferson	380	3	34.2		59	18†	18	2†	34	5.06		1.25	9.0	11	2[a]	9[a]	17[a]	sw.	E. G. Newman.
East Sound	San Juan	500	16																	
Ellensburg	Kittitas	1,571	23	29.3	− 1.1	48	8	7	16	35	0.40	− 0.69	0.32	2.1	2	15	10	3	nw.	R. L. Barnes.
Ephrata	Grant	1,265	8	28.4		45	1†	7	2	33						18	2	8	n.	T. J. Cook.
Forks	Clallam	480	2																	
Fort Simcoe	Yakima	1,427	17	28.8	− 6.2	50	2	9	15	32				12.5	11	12	10	6	s.	Dr. F. H. Monk.
Goat Lake	Snohomish	2,900	2								5.46		1.24		12					C. M. MacKintosh.
Gold Basin	do			40.6		69	1	25	2	41	6.39		1.34	47.0	13	14	0	14	sw.	L. D. Hurt.
Gold Creek	Yakima	2,600	2																	
Goldendale	Klickitat	1,600	5	33.0		48	8	13	15	27	0.52	− 1.22	0.10	4.9	10	11[a]	11[a]	5[a]	w.	Klickitat Co. Abstract Co.
Granite Falls	Snohomish	397	8								5.34		1.87		15	5	9	14	e.	C. H. Cleaver.
Hatton	Adams	1,100	6	31.2		50	8	4	25	31	0.57		0.25	7.0	4	6	12	10	sw.	A. V. Marion.
Huntsville	Columbia	1,400	3								1.93		1.05		5					Mrs. S. J. Hill.
Irene Mountain	Okanogan	3,015	2								0.83		0.30	12.7	7	14	6	8	n.	Manda Shain.
Kennewick	Benton	367	16	34.8	− 8.0	68	1	11	2	50	0.86	+ 0.12	0.31	7.0	5					Mrs. L. W. Soth.
Kettle Falls	Stevens	1,265	2	28.2		46	20†	4	27	37	1.14		0.35	9.5	7	10	11	7		Harry H. Cole.
Kiona	Benton	430	6	34.9		51	2	16	20†	30	0.71		0.32	6.7	5	21	1	6	sw.	Dr. F. S. Hedger.
Kosmos	Lewis	775	5	36.8		55	23†	18	3	30	2.65		0.62	13.0	10	8	16	4	ne.	J. A. Ulsh.
La Center	Clarke	250	14	36.4	− 4.0	53	23	19	3†	29	3.21	− 3.78	1.28	0.1	12	8	12	8	sw.	Joseph Brothers.
Lacrosse	Whitman	1,400	2	31.4		46	1	8	2†	36	1.25		0.60	8.5	12	12	6	10	sw.	M. E. Schreck.
Lake Clealum	Kittitas	2,171	2								1.27		0.35	25.5	9	9	5	14	nw.	U. S. Reclamation Service.
Lake Kachess	do	2,235	3	26.4		43	28	5	23	36	4.10		0.80	41.0	13	16	7	5	e.	Do.
Lake Keechelus	do	2,479	3																	
Lakeside	Chelan	1,116	20	27.5	− 2.5	42	11	7	2	27	0.92	− 0.41	0.39	9.5	7	5	19	4	e.	W. H. Van Meter.
Laurel	Klickitat	1,900	2								1.95		0.62	22.2	8	9	17	2	w.	Mrs. Minnie E. Strout.
Laurier	Ferry	1,644		25.7		48	6	− 4	27	41	1.04		0.23	11.4	9	13	4	11	s.	Mrs. J. S. Myers.
Lester	King	1,614	7	31.2		48	23	8	15	35	2.95		0.55	31.5	10	6	9	13		W. W. Clabough.
Lone Tree	Chehalis	14	2	40.6		51	28	28	2	15	4.56		0.95	0.5	17	7	11	10	e.	U. S. Engineer Corps.
Longmires Springs	Pierce	2,800	2	33.9		47	1	24	7	13	12.00		1.65	44.7	16				sw.	Samuel Estes.
Lost Creek	Okanogan	3,125	2								0.64		0.34	15.0	6	4	13	11	sw.	P. H. Leese.
Lucerne	Chelan	1,100	4	29.8		47	26	15	2†	28	1.10		0.40	11.0	5	5[b]	2[b]	19[b]	nw.	Mrs. Barbara Shearer.
McCumbers Ranch	Yakima	2,182	2								2.40		0.80	26.0	6	8	15	5	sw.	Mrs. Mary McCumber.
Mottinger	Benton	307	11	36.8	− 2.4	57	1†	13	28	29	0.94	− 0.18	0.33	4.5	6	16	4	8	e.	G. H. Mottinger.
Mount Pleasant	Skamania			34.4		48	28	20	2	20	1.40		0.42	6.5	10	13	4	11		D. Witt Burns.
Moxee	Yakima	1,000	19	*33.3	− 1.1	52	8	13[a]	16	32[a]	0.34	− 0.63	0.17	3.1	5	6	15	7		Henry B. Scudder.
Newport	Stevens	2,400	1	25.4		47	23	− 2	23	49	1.34		0.35	16.5	9	11	10	7	sw.	Chas. M. Talmadge.

TABLE 1.—*Climatological data for February, 1911. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Washington—Con.																				
North Head	Pacific	211	9	40.6	− 1.5	50	28	28	2	17	3.27	− 2.52	0.62	0.5	17	12	6	10	e.	U. S. Weather Bureau.
Northport	Stevens	1,350	12	26.5	.....	43	5	3	26	39	0.81	− 0.93	0.20	.....	7	10	4	14	.....	F. G. Janneck.
North Yakima	Yakima	1,070	2	33.6	.....	50	1	17	16	25	0.34	.....	0.23	3.9	5	10	10	8	nw.	Albert Bender.
Nutland	Klickitat	.....	2	34.5	.....	51	8	14	28	29	0.27	.....	0.13	.....	5	.....	.....	.....	.....	Miss Ruth J. Shepard.
Odessa	Lincoln	1,540	8	a31.1	.....	47	4	− 2	25	42	0.75	.....	0.45	7.5	4	14	7	7	sw.	Wm. N. Neeley.
Olga	San Juan	50	21	40.2	− 0.2	51	10	18	2	17	1.50	− 1.57	0.70	.....	6	11	10	7	se.	Cecil S. Willis.
Olympia	Thurston	200	33	38.4	− 1.9	55	28	23	2	30	3.70	− 3.12	1.78	0.0	14	11	8	9	sw.	M. O'Connor.
Omak	Okanogan	850	2	23.2	.....	45	14	− 2	28	42	0.75	.....	0.40	7.5	3	.....	.....	.....	.....	Wm. G. Tait.
Oroville	do	922	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Peola	Garfield	5,000	2	.....	.....	.....	.....	.....	.....	.....	1.62	.....	0.46	20.5	15	12	7	9	sw.	Samuel Gruell, sr.
Pomeroy	do	1,500	19	31.2	− 5.5	48	1	9	26	29	1.36	− 0.59	0.50	8.5	8	9	10	9	w.	Peter McClung.
Port Crescent	Clallam	259	16	36.0	− 1.2	48	17	23	1	20	1.82	− 2.89	0.87	1.9	12	3	14	11	s.	U. S. Weather Bureau.
Port Townsend	Jefferson	80	21	39.5	− 1.1	49	8†	30	15	17	1.81	− 0.11	0.64	T.	11	8	4	16	se.	F. Plummer.
Pullman	Whitman	2,550	19	26.9	− 5.9	40	1	10	3	20	2.48	+ 0.38	0.70	23.0	10	13a	2a	12a	se.	State Agricultural College.
Quinlault	Chehalis	300	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Republic	Ferry	2,628	11	21.8	− 3.7	39	6†	− 7	27	42	0.99	.....	0.38	9.0	5	16	3	9	w.	Geo. B. Stocking.
Rex Creek	Chelan	1,135	4	c33.3	.....	51	26	19	2	30c	0.50	.....	0.30	5.0	3	8c	3c	14c	se.	Jas. W. Nicol.
Ritzville	Adams	1,825	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rock Lake	Whitman	1,910	5	29.0	.....	47	13	7	25	30	0.81	.....	0.24	6.0	7	14	6	8	s.	P. M. Ramsey.
Rosalia	do	2,425	19	28.1	− 3.4	45	10	11	27	24	1.08	− 0.60	0.45	8.4	9	9	6	13	se.	Hans Mumm.
Russells Ranch	Yakima	2,870	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Seattle	King	123	20	39.8	− 0.7	51	8	27	2	20	1.42	− 2.44	0.30	3.6	12	4	10	14	se.	U. S. Weather Bureau.
Sedro-Woolley	Skagit	38	14	38.0	− 2.6	60	23	14	2	34	3.63	− 1.15	0.68	0.0	14	7	15	6	.....	Mrs. H. L. Devin.
Sixprong	Klickitat	1,240	4	34.3	.....	49	8	12	28	26	0.40	.....	0.19	0.0	4	15	3	10	ne.	C. E. Comstock.
Skagit Power Dam	Whatcom	510	1	33.8	.....	47	28	11	2	20	2.69	.....	0.51	13.5	13	13	2	13	.....	Skagit Power Co.
Snohomish	Snohomish	100	17	37.3	− 3.7	58	19	17	2	34	3.03	− 1.97	0.75	4.0	13	8	3	17	se.	Warren Hodge.
Snoqualmie Falls	King	667	12	37.2	− 3.0	61	23	21	27	35	3.13	− 3.16	0.60	.....	14	12	5	11	.....	O. N. Wiswell.
Snyders Ranch	Okanogan	2,200	2	18.8	.....	42	6†	−10	7	45	0.98	.....	0.49	16.5	4	15	10	3	ne.	George M. Snyder.
South Bend	Pacific	.....	16	39.2	− 4.0	54	8†	25	2†	27	6.30	− 5.46	1.41	.....	13	10	13	5	e.	Winifred Eichner.
Spokane	Spokane	1,943	30	30.1	0.0	44	10	13	16	25	1.08	− 0.85	0.41	9.8	11	9	3	16	s.	U. S. Weather Bureau.
State University	King	170	2	c38.6	.....	49	28	26	2	20c	1.43	.....	0.23	0.5	13	8	4	16	e.	University of Washington.
Stokes Ranch	Okanogan	2,670	2	.....	.....	.....	.....	.....	.....	.....	1.14	.....	0.45	14.3	7	17	8	3	nw.	Chas. W. Gunn.
Sumner	Pierce	77	3	37.7	.....	55	8	20	2	24	1.80	.....	0.37	0.5	14	11	5	12	n.	Herbert E. Thompson.
Sunnyside	Yakima	740	16	34.1	− 1.4	51	1†	15	28	29	0.31	− 0.47	0.10	1.8	7	8	16	4	e.	U. S. Reclamation Service.
Tacoma	Pierce	213	25	39.1	− 1.3	52	10	27	3	22	1.86	− 3.27	0.51	0.5	13	10	7	11	sw.	U. S. Weather Bureau.
Tatoosh Island	Clallam	86	26	40.2	− 0.8	52	28	29	1	13	3.77	− 4.99	0.93	2.2	15	9	5	14	ne.	Do.
Tieton	Yakima	2,000	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tonasket	Okanogan	945	....	23.4	.....	39	11†	0	2†	32	0.95	.....	0.48	6.8	5	5	9	14	s.	E. H. Twight.
Touchet	Walla Walla	556	4	33.6	.....	56	1	4	28	30	1.46	.....	0.49	2.5	10	11	8	9	sw.	D. W. Dorrance.
Touchet Ridge	Columbia	2,500	2	.....	.....	.....	.....	.....	.....	.....	6.90	.....	1.90	83.0	13	8	6	14	sw.	R. H. King.
Trinidad	Douglas	900	7	31.0	.....	47	1†	11	2†	28	0.54	.....	0.20	5.0	5	16	4	8	nw.	J. C. Wheeler.
Vancouver	Clarke	100	36	40.4	− 0.4	59	23	24	3	32	2.90	− 1.18	0.60	T.	12	8	9	11	s.	A. A. Quarnberg.
Vashon Island	King	40	22	38.6	− 1.7	51	8	25	2†	18	2.08	− 2.62	0.29	2.0	16	16	2	10	s.	Gertrude McClintock.
Wahluke	Grant	410	7	34.9	.....	55	15	21	2†	28a	0.50	.....	0.40	5.0	2	8a	10a	9a	.....	F. C. Koppen.
Wallace	Okanogan	4,000	2	.....	.....	.....	.....	.....	.....	.....	1.79	.....	0.71	20.4	7	9	12	7	s.	Geo. A. Wallace.
Walla Walla	Walla Walla	1,000	27	33.1	− 3.3	54	11	11	28	24	2.14	+ 0.56	0.81	17.0	10	9	5	14	s.	U. S. Weather Bureau.
Washougal	Clarke	650	11	38.7	− 1.6	54	18	21	3	19	4.16	− 1.86	0.95	3.0	14	14	6	8	w.	F. M. Grout.
Waterville	Douglas	2,624	21	21.0	− 4.0	40	1	− 3	16	31	1.17	− 0.18	0.50	11.7	6	13	7	8	.....	O. R. Hopewell.
Wenatchee (near)	Chelan	1,169	12	28.6	− 2.1	45	22	9	2	26	0.68	− 1.11	0.22	9.0	5	9	10	9	w.	Geo. A. Pitcher.
White Salmon	Klickitat	.....	.....	36.5	.....	52	8	23	4	23	2.36	.....	0.65	5.0	12	11	7	10	w.	C. W. J. Reckers.
Wilbur	Lincoln	2,203	12	25.2	− 2.8	47	22	− 2	28	44	0.34	− 1.30	0.16	12.0	3	15	2	11	se.	Rollin J. Reeves.
Wind River	Skamania	.....	.....	32.2	.....	49	19	14	3	27	5.63	.....	1.35	28.0	11	8	8	12	nw.	U. S. Forest Service.
Winthrop	Okanogan	.....	.....	20.4	.....	47	15	−12	16	53a	1.44	.....	0.70	14.1	5	14c	4c	7c	.....	Methow Trading Co.
Yale	Cowlitz	375	4	39.6	.....	54	16†	31	1†	19	6.35	.....	1.54	6.3	14	10	3	15	e.	L. F. Williams.
Zindell	Asotin	715	9	38.4	.....	55	1	18	3	32	2.31	.....	1.30	4.0	2	10	15	3	n.	M. W. Zindell.
Oregon.																				
Albany	Linn	212	30	39.4	− 3.0	55	17†	25	3	28	2.88	− 2.91	0.46	0.0	14	11	6	11	s.	F. M. French.
Ashland	Jackson	1,963	28	36.0	− 5.5	58	20	19	15	28	1.83	− 0.58	0.46	5.0	7	6	6	16	sw.	G. G. Eubanks.
Astoria	Clatsop	16	51	40.9	− 2.1	55	23†	27	2	23	4.36	− 3.57	0.81	1.2	15	11	8	9	ne.	Irving Club.
Baker	Baker	3,466	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Weather Bureau.
Bay City	Tillamook	14	17	41.2	− 3.3	56	23	25	3	23	5.68	− 8.85	1.20	1.0	18	7	7	14	se.	John O. Bozorth.
Bend	Crook	3,629	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Bend Bulletin.
Black Butte	Lane	1,200	10	34.5	− 5.5	45	9†	16	27	27	3.85	− 3.89	0.90	15.0	7	14	3	11	nw.	Wm. Harris.
Blalock	Gilliam	237	13	38.2	− 0.2	52	8	17	28	23	0.15	.....	0.15	T.	1	7	5	16	e.	Geo. W. Long.
Brogan	Malheur	.....	.....	28.6e	.....	42	2†	13i	3	22i	0.30	.....	0.19	3.0	2	21	6	1	w.	A. B. Cox.
Burns	Harney	4,157	20	18.0	− 9.0	39	1	− 7	15	37	0.50	− 0.91	0.18	7.0	4	14	9	5	n.	J. C. Welcome, jr.
Cascade Locks	Hood River	100	21	37.6	− 1.7	50	18	23	3	19	5.26	− 4.67	1.32	4.5	14	13	2	13	e.	Val. W. Tomkins.
Cazadero	Clackamas	503	2	39.4	.....	57	22	22	3†	27	4.55	.....	0.84	6.2	15	7	4	17	se.	Alf. Drill.
Christmas Lake	Lake	4,300	4	19.9	.....	41	9	−11	15	47	0.13	.....	0.06	3.1	4	5	18	5	sw.	John C. Green.
Condon	Gilliam	2,884	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Williams.
Corvallis	Benton	266	23	38.0	− 3.5	54	20	23	2	28	2.61	− 3.29	0.65	0.5	13	8	9	11	sw.	Oregon Agricultural College.
Dayville	Grant	2,200	17	31.0	− 7.8	56	10	8	27†	29	0.89	− 0.42	0.19	13.5	8	13	5	10	nw.	Dr. J. Campbell-Martin.
Deadwood	Lane	350	1	40.0	.....	63	21	27	27†	35	6.69	.....	1.24	2.5	14	8	6	14	sw.	Jos. Slemmons.
Doraville	Columbia	600	10	36.8	− 2.1	51	23	22	2†	24	4.32	− 1.94	1.65	13.7	16	6	8	14	se.	Jos. Hackenberg.
Drain	Douglas	300	9	40.2	.....	59	21	20	28	35	3.54	.....	0.99	0.0	16	10	8	10	nw.	Ira Wimberly
Echo	Umatilla	625	7	35.0	.....	57	1	11	26	32	0.89	.....	0.27	4.5	7	13	5	10	w.	R. B. Stanfield.
Ella	Morrow	830	7	32.5	.....	48	19†	10	26	30	0.43	− 0.61	0.12	5.0	6	16	6	6	sw.	Carl F. Troedson.
Eugene	Lane	449	21	39.3	− 3.3	57	22	23	28	26	2.44	− 2.31	0.56	T.	12	18	6	4	ne.	F. L. Barker.
Fairview	Coos	142	15	38.8	− 7.4	58	2	24	24	27	5.37	− 4.90	1.48	1.0	9	10	1	17	n.	Wm. Bettys.
Falls City	Polk	355	14	38.8	− 2.0	55	17	21	3	24	4.02	− 8.27	1.00	0.0	12	16	9	3	e.	Chas. F. Vick.
Forest Grove	Washington	220	22	38.8	− 1.5	52	8†	22	3	27	3.73	− 3.04	1.12	1.5	16	2	14	12	se.	Pacific University.
Gardiner	Douglas	72	21	42.6	− 3.2	58	11	26	26	24	6.65	− 4.03	1.06	0.0	13	10	8	10	.....	J. S. Gray.
Glendale	do	1,441	7	40.3	.....	60	9	17	27	36	3.11	.....	0.60	15.0	10	15	7	6	nw.	B. J. Simpson.
Glenora	Tillamook	575	20	35.2	− 6.0	51	22	19	4	28	11.30	− 5.24	3.20	27.0	15	10	2	16	sw.	Mrs. Jennie A. Reeher.
Gold Beach	Curry	40	10	42.0	− 4.7	55	17†	28	20†	24	6.55	−10.12	1.30	0.0	13	17	1	10	nw.	C. Dewey.
Granite	Grant	.....	...	19.1	.....	.....	.....	40	4	−17	28	53	3.13	.....	0.98	36.0	....	2	14	12	nw.	L. N. Ford.
Grants Pass	Josephine	956	23	38.2	− 4.1	58	21	20	27	36	1.62	− 3.68	0.41	4.5	11	10	7	11	sw.	John B. Paddock.
Grass Valley	Sherman	2,381	10	27.8	− 5.4	50	20	− 7	27	37	0.54	− 0.74	0.54	6.0	1	14	3	11	ne.	Agent O. R. & N. Co.
Headworks	Clackamas	719	9	39.8	.....	55	16†	29	26†	22	5.36	− 3.16	0.84	9.2	16	11	4	13	ne.	Portland Water Works.
Heppner	Morrow	1,950	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ralph M. Kenton.
Hermiston	Umatilla	451	4	34.5	.....	60	1	8	28	35	0.17	.....	0.17	1.2	1	11	13	4	.....	C. W. Kellogg.
Hood River	Hood River	300	21	34.6	− 2.0	48	19	19	28	23	2.30	− 2.48	2.00	2.0	3	3	1	24	w.	H. L. Hasbrouck.
Huntington	Baker	2,165	10	36.0	+ 2.1	52	11	21	7†	28	0.60	− 0.87	0.30	6.0	3	9	8	11	nw.	L. Connell.
Jacksonville	Jackson	1,640	23	35.8	− 5.4	58	10	17	15	30	1.77	− 2.37	0.70	6.0	7	12	6	10	.....	E. Britt.
Joseph	Wallowa	4,400	22	15.9	−10.3	33	15	− 5	27	32	3.05	+ 1.45	0.60	30.5	9	10	9	9	n.	F. F. McCully.
Klamath Agency	Klamath	4,169	3	22.0	.....	41	11	−12	15†	48	0.80	.....	0.45	8.0	3	16	8	4	s.	Edson C. Watson.

TABLE 1.—*Climatological data for February, 1911. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing direction of wind.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon—Continued.																				
Klamath Falls	....do	4,100	22	22.5	−11.5	39	17†	− 6	15†	29	0.55	− 1.05	0.17	8.2	4	17	4	7	nw.	W. H. Heileman.
LaGrande	Union	2,784	24	27.0	− 3.7	45	4	− 1	28	37	1.23	− 0.65	0.20	23.5	13	8	11	9	se.	W. A. Worstell.
Lakeview	Lake	4,825	28																	Geo. L. Wharton.
McKenzie Bridge	Lane	1,400	10	33.8	− 5.2	54	28	15	3	30	4.51	− 4.91	0.75	.....	18	8	3	16	w.	Geo. Frissell.
McMinnville	Yamhill	182	24	39.8	− 1.7	55	17	24	3	21	3.15	− 2.52	0.54	T.	10	12	5	11	ne.	J. H. Pruett.
Madras	Crook	2,150	3																	Howard W. Turner.
Marshfield	Coos	34	10	41.3	− 4.8	57	20	26	21	30	5.55	.....	1.11	0.0	15	....	....	....	nw.	U. S. Weather Bureau.
Merrill	Klamath	4,070	5	24.2	.....	47	9	− 9	16	38	0.56	.....	0.20	5.6	4	16	4	8	.....	Mrs. Agnes Ritchson.
Mikkalo	Gilliam	1,400	5	32.8	.....	51	1	6	26	29	0.32	.....	0.22	2.0	2	13	5	10	w.	Frank Little.
Miramonte Farm	Clackamas	195	23	38.8	− 2.7	53	20	24	3	25	2.84	− 2.28	0.80	0.0	13	10	6	12	s.	G. Muecke.
Monroe	Benton	350	14																	L. A. Peck.
Mount Angel	Marion	485	25	39.6	− 2.0	57	12	25	3	23	3.03	− 1.88	0.60	0.0	12	14	3	11	n.	Dr. Urban Fisher.
Mountain Park	Hood River	1,440	5																	Raymond Markley.
Musick	Douglas	5,000	2	27.4	.....	43	8†	11	27	24	9.86	.....	1.90	93.5	14	11	3	14	sw.	Alex. Lundberg.
Newport	Lincoln	69	24	43.2	− 2.4	59	24	28	3	28	3.54	− 5.32	0.93	0.0	14	11	6	11	nw.	Wm. Matthews.
North Bend	Coos	20																		High School.
Paisley	Lake	4,500	8	27.3	.....	45	10†	10	28	27	1.33	.....	0.60	14.0	5	9	11	8	sw.	E. C. Woodward.
Pendleton	Umatilla	1,070	22	33.7	− 3.5	55	1	3	28	33	1.44	+ 0.04	0.30	6.5	10	11	10	7	e.	E. F. Averill.
Pilot Rock	....do	1,817	3	33.0	.....	54	10	8	28	29	1.56	.....	0.35	14.2	9	14	7	7	sw.	John P. McManus.
Pompeii	Clackamas	3,879	16	25.3	− 6.4	44	3†	−13	27	33	6.14	− 4.53	0.82	56.0	14	7	9	12	sw.	O. C. Yocum.
Portland	Multnomah	57	41	40.2	− 1.1	52	17	27	20	18	3.34	− 2.39	1.02	0.2	13	8	8	12	nw.	U. S. Weather Bureau.
Port Orford	Curry	80	6	41.8	.....	56	17	28	27	24	7.20	.....	2.10	0.2	14	14	7	7	n.	J. D. Loucks.
Prineville	Crook	2,864	15	29.0[b]	− 7.1	48	1	4	28	31[b]	0.22	− 0.86	0.07	9.7	6	8[b]	1[b]	17[b]	.....	Geo. Whiteis.
Prospect	Jackson	2,800	5	32.6	.....	55	21	6	15	38	3.90	.....	0.60	31.0	11	11	11	6	w.	E. F. Graham.
Ramsey	Wasco	1,350	10	31.6	.....	47	1	11	28	24	0.68	.....	0.30	7.6	6	16	3	9	e.	Mrs. Iva B. Collins.
Range	Grant	3,500	3	29.0	.....	50	9	0	15	32	0.62	.....	0.50	5.0	7	11	6	11	.....	Mrs. Emma Arbuckle.
Richland	Baker	2,350	10	29.0	− 2.5	49	20	4	23	33	0.37	.....	0.20	3.7	4	12	4	12	.....	L. G. Morgan.
Riverside	Malheur	3,000	12	20.4	−12.9	45	1	− 9	16	43	0.80	− 0.35	0.20	7.0	7	18	6	4	n.	Mrs. Leah Fairman.
Roseburg	Douglas	510	33	38.8	− 3.8	57	21	22	27	30	2.61	− 1.95	0.43	5.3	14	7	12	9	s.	U. S. Weather Bureau.
Salem	Marion	120	21	40.1	− 2.9	53	17	27	3	17	1.72	− 2.87	0.38	0.0	13	6	2	20	sw.	M. P. Baldwin.
Siskiyou	Douglas	4,115	3	29.2	.....	43	21	14	15	20	2.58	.....	0.62	34.5	9	7	8	13	s.	Mrs. Anna Pearson.
Sparta	Baker	4,150	20																	J. A. Wright.
Stafford	Clackamas	400	15	39.3	− 2.2	60	8	24	3	28	3.17	− 3.22	0.85	0.5	15	....	....	....	sw.	John P. Gage
The Dalles	Wasco	112	37	36.5	− 0.7	49	1†	18	28	24	0.56	− 1.50	0.28	8.0	7	14	3	11	w.	S. L. Brooks.
Toledo	Lincoln	75	21	42.6	− 1.6	59	22†	18	20	37	5.10	− 5.10	1.60	0.0	6	16	9	3	e.	C. B. Crosuo.
Umatilla	Umatilla	340	23	35.8	− 1.2	57	1	11	28	27	0.60	− 0.31	0.25	0.3	4	10	2	16	e.	Mrs. Helen T. Duncan.
Vale	Malheur	2,242	19	28.2	− 3.1	46	11	8	8	33	0.48	− 0.48	0.13	0.8	7	18	7	3	ne.	H. P. Osborne.
Van	Harney	3,506	6	18.1[e]	.....	36	1†	− 12	16	39[e]	1.06	.....	0.45	10.0	3	8[d]	11[d]	5[d]	nw.	Geo. Howe.
Wallace Orchard	Polk	170	2	39.4	.....	59	9	25	3	29	3.00	.....	0.55	T.	12	3	19	6	.....	Chas. A. Park.
Wallowa	Wallowa	2,935	8	18.4	.....	44	2	− 12	28	41[a]	0.75	.....	0.12	12.3	12	6	4	18	se.	L. J. Coverstone.
Wamic	Wasco	1,500	10	30.6	.....	50	8	5	24	38	0.43	.....	0.12	8.0	4	0	0	28	w.	A. J. Swift.
Warmspring	Crook	1,500	9	32.8	.....	52	1†	11	16	34	0.35	.....	0.25	1.0	2	9	11	8	ne.	Claude C. Covey.
Wasco	Sherman	1,263	4	35.4	.....	48	1†	18	28	20	0.46	.....	0.25	6.5	4	13	11	4	w.	J. R. Howell.
Westfall	Malheur	3,000	....	24.1	.....	56	15	− 5	5	51	0.47	.....	0.21	9.0	4	22	2	4	e.	H. M. Gilliam.
Weston	Umatilla	1,800	19	32.8	− 1.8	57	1	0	28	33	2.45	− 0.02	0.71	22.5	10	5	5	18	se.	M. A. Baker.
Williams	Josephine	1,368	19	36.4[a]	− 5.9[a]	3[a]	20[a]	15[a]	15†	29[a]	1.60	− 3.85	0.70	9.0	5	15	7	6	n.	J. D. Dixon.
Yonna	Klamath	4,146	4	21.6	.....	41	17	−15	16	48	0.50	.....	0.20	4.2	4	16	7	5	s.	Jacob Rueck.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from the observed readings.
† Also on other dates.
‖ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Wwather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for February, 1911. District No. 12, Columbia Valley.*

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Montana.																														
Anaconda	Missoula	T.	.10			*	.37					.01	T.	.09	T.	T.			T.							.10	T.	T.		0.67
Bison Mountain	do		.40			.25						.35	.18	.08											.32	.30	T.	.08		1.96
Butte	do		.20	T.		.05	T.					T.		.20	T.				.05						.10	T.	T.			0.60
Columbia Falls	Flathead																								*	.20				
Como	Bitter Root	.20				.05							.04												.20	.01				0.50
East Anaconda ‖	Missoula	T.	.06			.61	.01						T.	.07	.01	T.			T.						.02	.03	T.	T.		0.81
Fortine	Flathead	.07	.23			.09	.09	.07	T.		T.			T.		T.	.03		.18						.21	.06				1.03
Hamilton	Bitter Root	.09												.04												.10				0.23
Hat Creek	Missoula	.18	.14			.15	.04						.14	.09	.02	T.			T.							.13	.07	.02		0.98
Kalispell	Flathead	.01	.03			.02	.01	T.			T.			T.	T.			T.	.05						.36					0.48
Lost Creek	Missoula	.12					.45							T.												.14				0.71
McGinnis Meadows	Kootenai	.10	.19			.10	.14	T.	.01				T.	T.	.02	.04	T.		.05						.08	.18				0.91
Missoula	Missoula	.11	.03										T.	T.	.01	.04									T.	.22				0.41
Ophir	do	.22				.20	T.							T.	T.		.10										.17	T.		0.69
Ovando ‖	do	.40	.20			.05							.10	.05	.05	.20					.05	.10	.05			.20				1.45
Philipsburg	do	.30	.10			T.	T.							.20	T.	T.										.15				0.75
Plains	Columbia																	T.								.30				0.30
Pleasant Valley	Kootenai	.06	.70			.03	.36					.02		.05					.17						.21	.22				1.82
Polson	Flathead		.04												.04	.10			.04							.40				0.62
Proctor	do																													
St. Ignatius	do													T.					T.					T.	.31					0.31
St. Regis	Missoula																													
Saltese	do	.72				.35	.37								.72				.12											2.28
Snowshoe	Kootenai	.49	.60			.22	.18	.10	.10		T.	T.	.04	.54	.12	.04	.21		.20						.08	.27				3.19
Troy	do																													
Willow Glen Stock Farm.	Missoula		.02			.25	T.						T.	.02												.05				0.34
Wyoming.																														
Afton	Snake	.12		.08	.12	.08	.27						.18	.08													.20			1.13
Alta	do	.10	.13	T.	T.	.30	.10						T.	.05																0.68
Bedford	do		.15		.27		.44							.12												.14	.10			1.22
Belcher River	do					1.20						.40	.30													.60	.20			2.70
Snake River	do	T.	.20	T.	T.	T.	.40							T.	T.	T.										T.	T.			0.60
Nevada.																														
San Jacinto	Snake		T.		T.		.14							.19					T.	T.	T.									0.33
Utah.																														
Standrod	Raft			.11	.09	T.	.16						3	.08	T.	.01	T.		.11	.05	.02			.02		01	.03	.06	T	0.88
Idaho.																														
Albion	Upper Snake																													
Alpha	Payette												.14	.47				T.	T.				T.		T.					
Blackfoot ‖	Upper Snake	T.	.02		.05	.18	T.					.04		T.	T.	T.	T.								.08	.10		T.	T.	0.47
Blackfoot Dam	do																													
Bocks Ranch	Boise	T.	.25			.05	.07					T.	T.	.27						T.				T.		.04	.08	T.		0.76
Bogus Creek	Payette	.07	.26			.04	.12					T.	.11	.19				T.					.11			.18	T.			1.08
Boise	Boise		.19			.05	.01					.01	.06	.03	T.			T.					.09	.08	.09	.07	.03	.01	T.	0.72
Bonners Ferry	Upper Columbia	.43	.07				T.					.05		.15		T.		T.							.10					0.80
Boulder Mine	Boise	.34	.62		.14	.35	.31						.15	.53	.02											.09		.16		2.71
Buhl	Upper Snake		.20			.02	.02	.02						.11	T.				.05	.04			T.	T.		T.	.06	T.		0.52
Caldwell	Boise	.20	.08			T.	T.					T.	.03	.03					.07		.05		.20	.12		.11	T.	T.		0.89
Camas	Lost River Region	.03	.01	.14			.30									T.	T.				.13								.01	0.62
Cambridge	Middle Snake	.10					.45					T.	T.	.20				T.								.09				0.84
Cedar Creek Dam ‖	Upper Snake		.50					.15						.75							.10					.20				1.70
Chesterfield	do	.03	T.		T.	.09	.22							.15												.02	.08			0.59
Coeur d'Alene	Upper Columbia	.10	.15				.25				.04	.06	.04	.18	.12	.07	T.	T.	.16		T.				T.					1.17
Cottonwood Creek	Boise																													
Culdesac	Clearwater		.70		T.		T.				.30				.51				.15						.16					1.82
Deary	do																													
Dent	do		T.				T.	T.								.07		T.	.08						.05	.19				
Driggs	Upper Snake			.12	T.	.07	.02								T.											T.				0.21
Edie	Lost River Region		.09																											
Emmett	Payette	.06	.12			.02	.04						.04						.01					.11	.03					0.43
Forney	Salmon		.05					.03						.05													.09			0.22
Garden Valley	Payette		T.			.10	.19					T.	T.	.11	T.								T.			T.	T.	T.		0.40
Garnet	Middle Snake		.02									.02		.12										.22		.05	.05			0.48
Glenns Ferry	do		.01											.30												.05	.15			0.51
Gooding	Wood-Malad	T.	.05				.11							.05					T.							.01	.21			0.43
Grand Forks	Upper Columbia	.24	.22				.66	.58						.32	.62	.16			.12											2.92
Grandview	Middle Snake																													
Grimes Pass ‖	Boise	.22	.18			.23	.09					.06	.27	.06				.01			T.		.03		.09	T.	.09			1.33
Guffey	Middle Snake	.03	.06			T.	T.					T.	T.	.15	T.	T.		T.	T.		T.		.07	.17	T.	.06	.05	T.		0.59
Hailey	Wood-Malad	T.	.53			.02	.15						T.	.45												T.	.17		.06	1.38
Hotspring	Middle Snake		.28											.20										.12						0.60
Idaho City	Boise				.30	*	.35							.53														.11		1.29
Idaho Falls	Upper Snake		.20			.07	.22						.07	.05												.14	.10			0.85
Indian Valley ‖	Middle Snake	.43	.17	T.			.20						T.											.07		.08				0.95
Irwin	Upper Snake	.11	.05		T.	.09	.09	T.					.06	.13												T.	.08			0.61
Kellogg ‖	Upper Columbia	.10	.75			.10	.17	.09					.13	.09	.18	.17	.13		.19							.29				2.39
Kirkham	Payette																													
Kooskia	Clearwater											.10			.10											.16				0.36
Lakeview	Upper Columbia	.60	.12			.06	.07					T.		.18	.04	.06			.26						.06	.05				1.50
Landore	Middle Snake	.44	1.43			.40						.20	.15	.56	.10			T.	.01		T.		.08		T.	.03				3.40
Lewiston	Clearwater	.03	.02				T.					.05		.12	.09			.02	.06				T.		.10	.04				0.53
Little Camas	Boise	T.	.18				.14							.25						.05			.04			.07	.12	.02		0.87
Long Gulch	do																													
Loon Creek	Salmon	.12	.21			.03	.20	.01				T.	.06	.18	T.		T.									T.	T.			0.81
Mackay ‖	Lost River Region	.03	.06	T.			T.							.06	T.									T.		T.				0.15
Meadows	Salmon																													
Meridian	Boise	.11	.16			T.	.01						.01	.09	T.				.01		T.		.06	.15		.17	.02	T.		0.79
Mesa ‖	Middle Snake	.71	.20			.41						.01	.05												.12					1.50
Middle Fork	Clearwater																													
Milner	Upper Snake					.02	.07							.31					.04	.02						.21	.10			
Moscow	Upper Columbia	.08	.10			.10	.10					.10	T.	.10	.40											.10				1.08
Mountainhome	Middle Snake																													
Murtaugh ‖	Upper Snake	.05		.04			.04								.10												.08			0.31
Nez Perce	Clearwater														.25				.10											
Oakley	Upper Snake		.05		.15		.05							.35		.10			.15								T.			0.85
O'Hara Bar	Clearwater					.20	.30					T.			.50	.10		.30								.50				1.90
Orofino	do	T.	.19			T.	.15				T.	.20			.46	.13		.07	.12						.19	.12				1.63
Payette	Payette	.14	T.			.05	.04					T.	T.	.02					T.		T.		.01	T.		.01				0.27
Peaceful Valley	Middle Snake	.15	.08			.01	.01							.01				T.					.03	.13	.11		T.			0.53
Pebble	Upper Snake	.08	.07	.03	.17	.09	.30						T.	.14						T.						.01	.01		T.	0.90
Pierson	Salmon	.26		.82									.42																	1.50
Pine ‖	Boise		T.			.16							T.	.43						T.							T.	T.		0.59
Pleasant Valley	do		.08			.04							.02	.12					T.				.04	.17		.13	.04			0.64

TABLE 2.—*Daily precipitation for February, 1911. District No. 12*—Continued.

Stations.	River basins.	Day of month.																											Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Idaho—Continued.																													
Pocatello	Upper Snake	T.	.24		.35		.14					.14		.31		.03	T.			.03						.21	.05		1.50
Poplar	do																												
Porthill	Upper Columbia	.05										.05						.28							.07				0.45
Powers Ranch	Boise	.04	.38			.24	.12						.09	.35	.11								.06	.29	.36	.10		.02	2.16
Pyle Creek	Payette	.57	1.54			.14	.16						T.	.20	.05								T.			T.		.02	2.68
Rattlesnake Creek	Boise	.12	.52			.15	.20					T.	T.	.30	T.											.03	T.	.09	1.41
Richfield	Wood-Malad		.01				.20						T.	.13												.08			0.42
Roseworth	Upper Snake		.09			T.								.15		T.			T.	.02	.03		T.			.02	T.		0.31
Roseberry	Payette																												
Ruby Creek	Boise	.17	.43			.18	.19	T.					.07	.21	.03				T.				.09	.12		.17	T.	.06	1.72
Rupert	Upper Snake		.04	.01	.05	.01	.06	.02				T.	.17	.18					.02	T.				T.		.05	.08	T.	0.09
St. Maries	Upper Columbia	.17	.48			.11	.20	T.			T.	.02	T.	.14	.27	.10		.01	.09						.13	.13			1.85
Salmon	Salmon	T.	T.			T.	.07						.04	.04												.06			0.21
Salmon River Dam	Upper Snake		.03	T.	T.	T.	.06							.31	.02	.01			.03	.02	.02		T.	T.		.06	T.		0.56
Sandpoint	Upper Columbia	.46	T.			T.	.40				T.	T.		.41	T.	.20		T.	.46						.20	T.			2.13
Sheep Hill	Boise	.10	.41			.51							.10	.32	.01			T.	.01				.03	.02		.05	T.	.07	1.63
Shoshone	Wood-Malad		.02				.16							.10					T.	T.						.19	.40		0.87
Silver City	Owyhee	.07	.25			T.	.31					.08	T.	.39	.04	T.		T.	T.	T.	T.		.05	.10		.09	.08	.24	.08	1.78
Smith Prairie	Boise		.39			.07	.20					.02	.38		.05									.08			.20	.10		1.49
Smith Ranger Station	Upper Columbia																												
Soldier Creek	Wood-Malad	T.	.89											.74						T.						T.	.12	T.	T.	
Spirit Lake	Upper Columbia		.63										.21	2.78				.61											4.23
Springfield	Upper Snake		.10		.10									.10												.22	.12		T.	0.64
Sugar [1]	do	.27		.02		T.	.13						T.		.01											.06			0.49
Sunnyside	Middle Snake		.06				.02						T.	.21		.11							T.				.67		
Tripod Mountain	Payette	.24	.33			.10	.18					T.	T.	.07	.06								T.			.24			1.22
Twin Falls	Upper Snake		.26											.31													.10	.07	0.74
Vernon	do			.02									.05	.02												1.20			1.29
Wallace	Upper Columbia	.45	.77			.17	.31	.07			.01	.12	.06	.24	.25	.18	.02	T.	.16	T.					.08	.22			3.11
Wendell	Wood-Malad		T.				.06							.05					T.							T.	.07		0.18
Washington.																													
Aberdeen	Coast	.35			.18	.72	.24	.25		.08	.12	.41	1.05	.82	.26		.02	.43											4.93
Anacortes	Puget Sound	.08		.15	.02							.37	.19	.30	.24			.14	.26										1.75
Baker	do	T.					T.						1.07	.92	.43			.95							T.				3.37
Bellingham	do	.05		T.		.06				.07	.05	.75	.45	.10	.14					.50		T.			.29				2.46
Bellingham (near)	do	.05				.09	.06	T.	T.			.47	.08	.03	.24			.35	.24				T.		.33				1.94
Blaine	do	.07		T.		.04	T.	T.	.04		.08	.42	.03	.20	.13			.37	.08				.01		.20				1.67
Blewett	Wenatchee	.10				.20					.40	.10	.50	.10				.30				.20							1.90
Bremerton	Puget Sound		.28				.24			.18	.29	.10		.84	T.		.02	.32	.02						.03	.16			2.48
Brewster	Columbia										.18	.20	.38		T.			.04				.08			.10				0.98
Bumping Lake	Yakima																												
Cashmere	Wenatchee	.08				T.				T.	.30		.18	.14				.09				.02	.08						0.89
Cedar River	Puget Sound	.02	.36			T.	.25	.10		.07	.31	T.	.09	.20	.21			.91							.29				2.81
Centralia	Coast	.14	.04			.36	.15				.19	.17	.72	1.20	.05			.24							.05	T.			3.31
Cheney	Spokane	.11				.02		T.	.02	T.	.05		.25	.03	.05	.04	T.								.02		.18		0.77
Clealum	Yakima	.06				.10	.15	.05			.08	.12	.19	.27				.04	.08				.05							1.19
Clearbrook	Puget Sound	.02						.31		.01	.06	.44		.61	.06			.44							.29					2.24
Colfax	Palouse		.82			.11	.03					.05			.11		.28									.16				1.56
Colville	Columbia	.21									.05	.10	.15												.42					0.93
Conconully	Okanogan										.13	.72	1.10	.20	.20			.05					.10	.05						2.55
Crescent	Spokane																												
Davenport	Columbia																												
Dayton	do	.27	.61			.27	.06					.09		.06	.14			.06	.02				.11		.20					1.89
Detroit	Puget Sound	T.				.19	.15	.03		.07	.21	.18	.34	.62	T.			.51	.02				.02		.03					2.37
Dixie	Columbia	.06	1.65			.44	.35	T.				.52	T.	.48	1.04			.02	.32	T.			.26		.40	.68	T.			6.22
Duckabush	Puget Sound	.05		.06	.05	.45				.20	.10	1.10	1.20	1.25				.50							.10					5.06
East Sound	do																												
Ellensburg	Yakima	T.									T.		.32					T.					.08						0.40
Ephrata	Columbia																												
Forks	Coast																												
Fort Simcoe	Yakima																												
Goat Lake	Puget Sound		1.05			.28	.45	.10	.13			.42		1.24	.99				.45	.06			.02			.27				5.46
Gold Basin	do	.90	.26	T.		.61	.55	.20				.20	.21	.94	1.34			.59	.28						.16	.15				6.39
Gold Creek	Yakima																												
Goldendale	Columbia	.10				.01	.02			.02	.02	T.	.21	.01				.01				T.				*	.12			0.52
Granite Falls	Puget Sound	.79	.02	.06		.16	.13				.04	.45	.42	.40	1.87	.05		.36	.21						.28	.10				5.34
Guler	Columbia																												
Hatton	do	T.										T.	.06	T.				.04					.22		.25					0.57
Huntsville	do					1.05					25					.25			.15				.23							1.93
Irene Mountain	do										.05	.21	.05	0.7		.05			.10						.30					0.83
Kennewick	do		.18										.13		T.			.05					.19			.31				0.86
Kettle Falls	do	.10									.13	.11	.20	.15					.10						.35					1.14
Kiona	Yakima	.04										.04	.14										.17			.32				0.71
Kosmos	Columbia		.62			.11						.38	.16	.52	.17			.27	.18						.20	.04				2.65
La Center	do	.20			.12	.03	.09			.17	.48	.03	1.28	.35	.08			.27							.11	T.				3.21
La Crosse	Palouse	.02	.60			.05	.01					.03	.13	.03	.09			.05	T.	T.			.05		.17	.02				1.25
Lake Clealum	Yakima	T.	T.			.11	.23	T.			.02	.13	.10	.35				.06	.17				.10							1.27
Lake Kachess	do	.30	.20			.20	.60				T.	.20	.20	.80	.40			.20	.70			.10	.10		T.	.10				4.10
Lake Keechelus	do																												
Lake Side	Columbia	T.								T.	.16	.16	.39	.02		T.		.05				T.			.12	.02				0.92
Laurel	do	.38				.25	.06				.12		.62	.45				.02				.05								1.95
Laurier	Kettle	.10	.06								.11	.23	.05	.23				.03	.08						.15					1.04
Lester	Puget Sound	.55	.10			.10	.25					.15	.25	.25	.35			.40	.55											2.95
Lone Tree	Coast	.23	.04		.05	.50	.33	.73	.12	.08	.37	.12	.95	.34	.16	.01	T.	.41	.09						.03					4.56
Longmires Springs	Puget Sound		T.		1.10	.39	.50		.12	.32	.20		1.20		1.65	.47	.99	1.00	.81	.25			1.00					1.00	1.00	12.00
Lost Creek	Columbia											.34	.02	.13				.05					.07		.03					0.64
Lucerne	do										.15		.15	.40						.30					.10					1.10
McCumbers Ranch	do	.20				.20					.40		.80	.70								.10								2.40
Mottinger	do	.18								.04	.09	.06				T.		T.				.24			.33					0.94
Mount Pleasant	Coast	.13	.42			.05	.04					T.	.08	.18	.01			T.	.20				.18		.11	T.				1.40
Moxee	Yakima										.07	.03	.17										.05			.02				0.34
Newport	Pend Oreille	.35		.03		T.	.09				.03	T.	.07	.27	T.	.15		T.	.20						.15	T.				1.34
North Head	Coast	.23	.02		.26	.14	.05	.36	.11	.19	.38	.15	.54	.23	.07			.40	.02						.10	.02				3.27
Northport	Columbia	.20		.01				T.		.10	T.	.10	.15			T.		.10							.15					0.81
North Yakima	Yakima					T.	T.				.04	T.	.23	.01				T.				T.	.01		T.	.05				0.34
Nutland	Columbia			.05									.13										.04		.01		.04			0.27
Odessa	do	T.								T.	.05	T.	.10	T.	T.								.15		.45	T.				0.75
Olga	Puget Sound					.12						.33		.10				.08	.70						.17					1.50
Olympia	do	.20	.03			.40	.12			.04	.12	.24	.28	1.78	.04	.03		.34	.05						.03					3.70
Omak	Okanogan										.25	.40														.10				0.75
Oroville	do																												
Peola	Snake	.05	.46			.12	.21	.02				.08	.03	.05	.20	.06		.04	.02	T.				.02	.07	.19				1.62
Pomeroy	do	T.	.40			.02						.05	.04		.50			.05							.20		.10			1.36
Port Crescent	Coast	.08	T.		.18	.18					.03	.06	.75	.18				.23	.02			.02	.01		.08					1.82
Port Townsend	Puget Sound	.20	.04			.08					.13	.23	.64	.04	.38			.04	.02						T.	.01				1.81

TABLE 2.—*Daily precipitation for February, 1911. District No. 12*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Washington—Cont'd.																														
Pullman	Palouse	.13	.20	.10		.20	.30		.15			.20	.20		.70										.30					2.48
Quiniault	Coast																													
Republic	Kettle									T.	.07	.30	.10	.14				T.						.38					0.99
Rex Creek	Columbia					T.				T.	.10		.10	.30										T.					0.50
Ritzville	....do																													
Rock Lake	Palouse	.19	T.			T.	T.				.09		.04	.06	.07			.12							.24					.81
Rosalia	....do		.45			.06	.03				.03	.02	.05	.20	.08										.16					1.80
Russells Ranch	Yakima																													
Seattle	Puget Sound	.30			.05	.16	T.	T.	.01	.01	.14	T.	.24	.02	.04			.28	T.			T.			.16	.01				1.42
Sedro Woolley	....do	.33				.68	.20	.01	.01	.01			.53	.41	.60			.40	.20	.01		.01			.23					3.63
Sixprong	Columbia												.19											.08	.03		.10			.40
Skagit Power Dam	Puget Sound	.51		.06		.26	.16	.22	.16	.04		.35	.08	.20	.19			.31							.15					2.69
Snohomish	....do	.40	.40			.14	.08		.05	.02	.08	.09	.30	.11	.75			.36							.25					3.03
Snoqualmie Falls	....do	.60	.10			.33	.15	T.			.03	.32	.07	.38	.34			.28	.27				.03		.11	.12				3.13
Snyders Ranch	Columbia									T.	T.	.30	.49	.09				T.				T.	.10			T.			.98
South Bend	Coast	.60	.09			1.00	.39	.04	.01		.15	.36	1.28	1.41	.19			.74	.04											6.30
Spokane	Spokane	.20	.01			T.				.02	T.	.01	.10	.11	T.	.06		.09	.07						.37	.04				1.08
State University	Puget Sound	.16	.03			.13	.07		T.	T.	.12	.09	.09	.20	.08			.23	.11						.04	.08				1.43
Stokes Ranch	Columbia					.03					.08	.33	.45	.08				.06					.11						1.14
Sumner	Puget Sound	.22	.02			.06	.08	.01			.22	.13	.05	.36	.02			.37	.09						.21	.16				1.80
Sunnyside	Yakima									.07	.02			.05				.01					.06		.07	.03				.31
Tacoma	Puget Sound	.17	.05		.02	.06	T.	.01		.01	.19	.18	.37	.16	T.			.40				T.	T.		.20	.04				1.86
Tatoosh Island	Coast	.07		.01	.42	.26	.25	.55	.01	.03	.34	.12	.79	.20	.04		T.	.59	T.			T.			.11					3.77
Tieton	Yakima																													
Tonasket	Okanogan										.05	.48	.29		T.			.03							.10					.95
Touchet	Columbia	T.	.49			T.						.07	.05	T.	.05			.07	.09	.11			.21		.24	.08	T.			1.46
Touchet Ridge	....do	.20	1.70			.60	.30					.19	.25	.40	1.60			.05	.20				.25		.85	.31	T.			6.90
Trinidad	....do	.20									.08	.02	.14					.10							T.	T.				.54
Vancouver	Columbia	.45	.01			.23		.06		T.	.24	.33	.60	.50	.04			.35							.07	.02				2.90
Vashon Island	Puget Sound	.08	.21	T.		.15	.05	.01	.01	.05	.09	.25	.11	.26	T.			.20	.25				.03	T.	.04	.29				2.08
Wahluke	Columbia									.10			T.												.40					.50
Wallace	Okanogan					T.					.14	.71	.43	.14				.14					.13		.10					1.79
Walla Walla	Columbia	.41	.40			.07						.24	.04	.03	T.			.05	.11				.23		.56	T.				2.14
Washougal	....do	.95	.10		.02	.12	.04	.02			.05	.15	.75	.75	.08			.88	.10						.15					4.16
Waterville	....do	T.								T.	.20	.12	.50					.05					.15		.15					1.17
Wenatchee (near)	....do	T.								T.	.08	.17	.22	T.				.06	T.			T.	.15		T.	T.				.68
White Salmon	.... do	.41	.05			.18	.15				.10	.03	.65	.24	.05			.16				.13				.21				2.36
Wilbur	....do											T.		.11				T.					.07		.16					.34
Wind River	....do	1.09	.07			.45	.61				.20		1.16	1.35	.10	T.		.41	.11			.08			T.					5.63
Winthrop	....do											.70		.45				.04				.15	.10							1.44
Yale	....do	1.06				.60	.30	.36		.03	.26	.28	.30	1.00	1.54	.13		.35							.10		.04			6.35
Zindel	Snake	1.30	1.01		T.	T.																								2.31
Oregon.																														
Albany	Willamette	.40	.20			.18	.44	.06			.02	.40	.10	.46	.40	.02		.04	.12							.04				2.88
Ana River	SE. Drainage		.17			.02	T.					.02		.12				T.				T.				T.	.01		T.	0.34
Ashland	Rogue	T.	.35				.17				.46	.25	T.	.43				.11							.06			T.		1.83
Astoria	Columbia	.24	.08		T.	.81	.51	.08	.22	.02	.27	.17	.60	.61	.08	T.		.60	.05						.02					4.36
Bagleys Ranch	Snake			.04		.06						.02		.10				.02					.07			.04				0.35
Baker	....do																													
Bay City	Coast	.61	.05		.01	.88	.24	.16		.12	.61	.15	1.20	.67	.08	.14	.02	.35	.04						.12	.23				5.68
Bear Creek	Deschutes		.25									.13	.07	.16											.07	.16	.02			0.86
Bear Valley	John Day	.40										.22	.10	.30							T.	.10		.33		.52	.05			2.02
Beech Creek	....do	T.	.50			.07						.15							.18	.10			.25		.15	.15	.05			1.60
Bellfountain	Willamette	.43	.02		T.	.83	.32	T.			.19	.12	.67	.55	.08	T.		.16	.03						.05	.13				3.58
Bend	Deschutes																													
Big Basin	John Day	T.	.30									.02	.35									.40	.10		.20	.35	T.			1.72
Blackbutte	Willamette	.90	.30	.40		.25	.45				.15	.10	.25	.30	.20	.25									.30					3.85
Blalock	Columbia												.15					T.							T.	T.				0.15
Blue Mtn. Sawmill	Umatilla	.08	.63			.30						35	.20		.90					.70			.40		1.10					4.66
Brogan	Malheur						.11						T.	T.				T.					.19	T.		T.				0.30
Buena Vista	Snake		T.			.30							.10					.10	.20				.30			.20				1.20
Burns	SE. Drainage		.10			.18							.13											.09						0.50
Burns Mill	....do	.60		.20		.10					.20						.40					.25					.10		1.85
Butte Falls	Rogue	.02	.62			.31	.10			T.	.05	.66	.04	.53	.01			.14							T.	.19	.07			2.74
California Gulch	Umatilla			.40		.21						.48		.28					.69						.90					2.96
Canyon City	John Day	T.	.48			.05	.13				T.	.28	.05	.15	T.			T.	.15	.03			.20		.22	T.	.03			1.77
Cascade Locks	Columbia	1.32	.12			.30	.62	.10			.06	.28	.16	1.32	.16	T.		.35	.20	T.					.05	.22				5.26
Cascadia	Willamette	.64	.33			.56	.21	.80		T.	.12	.58	.52	.52	.14			.48	.11				.05		.12	.39	.03			5.60
Cazadero	....do	.84	.60			.38	.38	.06			.08	.41	.28	.81	.07	T.		.36	.06				.08		.05	.09				4.55
Christmas Lake	SE. Drainage		.20			.07						T.	T.	.02					T.	T.		T.	T.		T.	.01	T.	T.	T.	0.30
Columbia Mine	Snake	.20	.70			.30	.20	.20			.20	.20	.30	.50	.50	.10		.20	.20				.55		.05	.80				5.20
Condon	John Day																													
Coquille R. L. H	Coast	1.01	.11				1.17				1.70	.20	.60	.10	.55			.24							.11					5.79
Cornucopia	Snake	.16	.40			.03	.13				.06	.05	.34	.31	.10	T.		.08				.01	.09		.04	.02				1.82
Corvallis	Willamette	.10		.40	.50	.01				.03	.25	.05	.65	.45	T.		.05	.08	T.				.01		.03					2.61
Cracker Creek	Snake	.20	.60			.20	.20	T.			T.	.20	.20	.40	.60			.20	.20		T.		.40		T.	.40	T.			3.80
Crescent	Deschutes	T.																												
Dayville	John Day	T.	.16			T.					T.	.17	.08	.03				T.	.06				.19		.05	.15	T.			0.89
Deadwood	Willamette	1.01	.10			1.24	.56			.04	.47	.42	.60	.60	.57	.16		.46							.05	.41				6.69
Diamond	SE. Drainage		.14			T.						T.	.04							.12				.04	T.	.07	T.	T.		0.41
Doraville	Columbia	.16	.01		T.	.31	.23			.02	.18	.20	.93	1.65	.12	.01		.26	.13				.01		.05	.05				4.32
Drain	Umpqua	.25	.31		.01	.41	.23			.05	.12	.31	.22	.99	.18	.01		.11	.02						.28	.04				3.54
Dufur	Columbia	T.				T.					.03	.06	.25	.04				.04				.05				.23				0.70
Duncan	Umatilla	.60										.40	.30		1.00				.55				.20	1.60		.10				4.75
Echo	....do	.06										.07		.15					.10				.18		.27	.06				0.89
Ella	Columbia		.03		.12					T.													.10		.09	.04	.05			0.43
Embody	Interior Drainage	.30	.84				.32						.60	.20						T.		T.		.01		.05		.10	.02	2.44
Eugene	Willamette	.06	.56		.03	.22	.24				.02	.41	.32	.21	.14				.08							.15				2.44
Fairview	Coast	.52				1.48	.63			T.	1.20	T.		.30	.58	.30		.14								.22				5.37
Falls City	Willamette	.38				1.00	.36			.06	.27	.07	.96		.32	.04		.41					.03			.12				4.02
Fir Glen	Coast	.75	.10			.50	.48				.08	.40	.40	.60		.45		.29								.30				4.26
Florence	....do	1.04	.09			.54	.16	.08		.01	.59	.15	.45	.60	.34	.21		.34							.10	.23	.06			4.99
Forest Grove	Willamette	.31	.04	.05	.08	.14		.02	.62	.12	.14	.06	.56	1.12	.12	.03		.27							.05					3.73
Fort Rock	Interior Drainage	.10									.04		.30																	0.44
Galice	Rogue	.20				.35				.08	.72	.15	.25	.20				.30									.10			2.35
Gardiner	Umpqua	1.06	.13		.95	.76				.08	.63	.45	.44	.44	.63	.26		.32							.50					6.65
Glencoe	Columbia		.04										.28												.42					0.74
Gibbon	Umatilla		.82			.12	.15					.53	.03	.19	.33			.04	.50				.24		1.31	.04				4.30
Glendale	Umpqua		.20	.20		.40					.50	.40	.60	.19	.22	.12										.28				3.11
Glenora	Coast	.50			.55	1.50	.70	.20			.50	.40	1.40	3.20	.70	.10		.80	.30						.10	.35				11.30
Gold Beach	Rogue	.92			.36	.70	.34			.04	1.30	.43	1.00	.41	.39			.35								.24	.07			6.55
Golden Falls	Coast	.93	.23			1.23	.78			.12	.58	.47	.50	.87	.78	.17	.02	.45	.03				.09		.06	.58	.02			7.91
Grand Ronde	....do																													
Granite	John Day	.20	.98			T.						T.	.20	.39	.26								.20			.90	T.		T.	3.13

TABLE 2.—*Daily precipitation for February, 1911. District No. 12*—Continued.

Stations.	River basins.	Day of month.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Oregon—Continued.																														
Grants Pass	Rogue	.08	.36	T.		.11				.03	.23	.15	.12	.41	.01			.01								.11				1.62
Grass Valley	John Day																										.54			0.54
Greenhorn	Snake	.10	.66			.18	.19	.02		T.	.02	.08	.26	.34	.24			.17	.10	.02	T.		.35		.06	.15	.05		T.	2.99
Gumboot	....do	.30	.88			T.	.11					.32	.22	.70	T.				.09							.15	T.			2.77
Gurdane	Columbia	.02	.50			T.							.04	.03	T.			T.	.15			.20			.50	.35				1.79
Happy Home	Umpqua	1.30			.10	.60	1.40	.68	.16	.10	1.06	.80	.64	1.74	.24			.08						.12	.36	.40				9.78
Hay Creek	Deschutes		.32			.04	.01				T.	.58	.11						.05					.02	.02	.26	.16			1.57
Hazledell	Willamette				.34	.24					.60		.40	.20	.25			T.							T.	T.				2.03
Headworks	....do	.01	.45			.66	.86	.12			.20	.60	.42	.84	.07	.02		.32	.22					.10	.17	.30				5.36
Heppner	Columbia																													
Hermiston	Umatilla																T.		T.	T.				.17	T.					0.17
Hilgarde	Grande Ronde		.30			.20						.10	T.	.70	T.		.10	T.	.25				.10		.65	T.				2.40
Hood River	Columbia									2.00	.20	.10	T.																	2.30
Hoover	Willamette	.75	.20			.51	.52	.12				.30	.84	.51	.14			.56	.10						.04	.36	.01			4.96
Howardville Station	Grande Ronde		.46			.17	.16	.07				.21	.01	.30	.10			.09	.11	.03			.25		.08	.05				2.09
Huntington	Snake					.25												.05				.30								0.60
Ibex Mine	John Day	.07	.40			.06	.15	.12			.02	.20	.43	.24	.28	.02		.09	.08		T.	T.	.38	T.	T.	.40	.12	.04	T.		3.10
Ironside	Snake					.15	.20				.10		.15	.15				.20					.45				.05				1.45
Jacksonville	Rogue		.38			.12	.10				.13	.21		.70				.13													1.77
Joseph	Grande Ronde		.60		.30							.40		.20			.30	.45					.20			.20	.40				3.05
Kerby	Rogue																													
Klamath Agency	Klamath						.20				.15			.45																	0.80
Klamath Falls	....do	T.	T.		T.		.17			T.		.16	.12	.10												T.	T.				0.55
La Grande	Grande Ronde	.03	.03			.05	.03					.10	.01	.17	.20	.04	.19					.18		.08	.12						1.23
Lilyglen	Rogue	.02	.29			.18	.17				.05	.74	.05	.66	T.			.18								.40	.16				2.90
Long Creek	John Day		.18			.05	.05				.30	.23	.10	.20	.40		.05	.10	.10	.14	.26		.15		.05	.20	.05				2.61
Long Valley	Pitt	.04	.24	T.		.06	.03				T.	.34	.14	.16				.01		T.				.03		T.	.01				1.06
McKenzie Bridge	Willamette	.61	.64	.03		.40	.45	.04	.03	.01	.06	.30	.34	.75	.13	.03	.01	.36				.03			.29						4.51
McMinnville	....do	.31				.54	.23			T.	.34	.19	.49	.72	.12			.18							.03						3.15
Marshfield	Coast	1.07	.28			1.11	.46			T.	.52	.40	.37	.29	.48	.24		.13					.03		.01	.14	.02				5.55
Maury	Deschutes		.19		.11			.21			.07	.12	.56				T.	T.	T.	T.		T.	.13		.15	.61					2.15
Meacham	Umatilla			.10	.11					.09	.17			.12				1.10	.40						1.20	.20					3.49
Merrill	Interior Drainage	.20					.10					.16		.10																	0.56
Metolius	Deschutes	.08	.05			.15	.16					.04	.24	.48				.05	T.			T.	.01	T.	T.	.16					1.42
Mikkalo	John Day					.22																					.10				0.32
Miller Prairie	Columbia	.60				.40	.60			.05	.45		.05						.25				.15		.70		.10				3.35
Miramonte Farm	Willamette	.58				.20	.22	.03		.02	.15	.06	.42	.80	.06	.04		.20							.06						2.84
Monroe	....do																													
Mountainhome	Columbia	.10				.35	.72				.18		.38	1.14	.81			.42													4.10
Mount Angel	Willamette	.53	.03				.22	.02			.30	.42	.28	.60	.10	T.		.43					.02		.08						3.03
Mount Hood	Columbia	.26				T.	.30					.08	.20	.51	.06	T.		.29				.03				.02					1.75
Mountain Park	....do																													
Mountain Ranch	Rogue	.10	.40			.50	.60				.18	.73	.10	1.31				.07													3.99
Musick	Umpqua	1.09	.98			.80	.78				.20	1.07	.92	1.90	.50	.08		1.00							.04	.42	.08				9.86
Newport	Coast	.93	.02			.28	.12				.25	.45	.60	.10	.20	.07	.25	.14							.03	.10					3.54
North Bend	....do																													
Ochoco	Deschutes																													
Ochoco Creek	....do						T.	T.				.15	.10						.02						.08	.10					0.45
Owyhee	Owyhee	.10	T.			.70												.60					.15	.07			.03				1.65
Paisley	SE. Drainage		.23	.10			.20																				.60	.20			1.33
Pendleton	Umatilla		.16				.01				.03			.18				.04	.28	.23			.20		.30	.01					1.44
Persist	Rogue	.18	.38			.25				.16		.83	.29	.48	.04			.20								.45					3.26
Pilot Rock	Umatilla		.17									.10			.30		.05	.35	.16				.20		.05	.18					1.56
Pompeii	Columbia	.74	.40			.46	.73	.14			T.	.35	.57	.82	.37	T.		.30	.45			.10	T.		.10	.61					6.14
Portland	Willamette	1.02			.05	.14	.01	.02		.03	.36	.07	.72	.57	.07	.01		.24							.03						3.34
Port Orford	Coast	2.10	.22			.82	.28			.10	.83	.68	.60	.27	.52	.14	.18									.36	.10				7.20
Post	Deschutes		.17			.02		T.				.08	.05					T.					.06		.04	.04					0.46
Power House	Walla Walla																													
Prineville	Deschutes	T.	.02									.03		.01							.06		.07		T.	.03					0.22
Prospect	Rogue	.50	.50			.50	.20			.10		.50	.60	.40	.20			.20								.20					3.90
Ramsey	Columbia										T.	T.	.30	.06				.04				.05	T.			.14	.09			0.68
Range	John Day			.01		.04					.01	.50			.01	.03			.01				.01								0.62
Ray Creek	Columbia																													
Reston	Umpqua	.28	.12			.46	.12			.30	.25	.17	.65	.64	.13			.10								.25					3.47
Richland	Snake					T.							.05					T.	.07				.20	.05							0.37
Riverdale	Deschutes			.03				.02				.01		.20									.02			.13				.02	0.43
Riverside	Malheur	.10	.20			.10							.10					.10					.15				.05				0.80
Rock Creek	Willamette					1.31	.59										1.80	1.42													5.12
Roseburg	Umpqua	.43	.08		.09	.25	.05			.01	.27	.09	.41	.41	.11			.04							.04	.33					2.61
Rosland	Deschutes	.08	.38				.22			T.	T.	.41	.15	.33										.04		.10	.65	.45	.20	3.01
Salem	Willamette	.38				.20	.08	T.		T.	.14	.24	.20	.24	.04	.02		.06	.06				T.		.05	.01					1.72
Seneca	SE. Drainage																													
Siskiyou	Rogue		.46				.28						.62	.41	.26	.07		.17								.16	.15				2.58
Sisters	Deschutes		.27			.04	.14						.05	.40				.04						.12				.08			1.14
Sparta	Snake																													
Stafford	Willamette	.63	.11		.03	.13	.16	.07		.03	.15	.30	.45	.85	.03	.04		.18	.01						T.						3.17
Starkey	Grande Ronde		.50					.20				.50	T.		.30							.20			.30						2.00
Sugar Creek	Deschutes	.34				.12						.06	.10													.14					0.76
Summit	Willamette	.51	.06			.78	.40	T.		.28		.25	.45	.80	.25			.34	.14						.05	.15					4.46
Summit Prairie	Deschutes																													
Susanville	John Day	.30			.05	.10	T.					.20	.10	.01	.20			.02	.20				.25			.30					1.73
Tamarack	....do	.45								.15		.32	.15		.35							.30				.60					2.32
The Dalles	Columbia						T.			.02	.02		.17	.02					.02			.03				.28					0.56
Tinroof Cabin	Umatilla																													
Toledo	Coast					.40	.80				.50		1.40	1.60				.40													5.10
Trask	....do	.70									.60	1.40	1.50	1.80	2.00	1.00	.20	.26													9.46
Trout Creek	SE. Drainage																													
Umatilla	Columbia									T.	.02	.13						T.			T.		.20		.25					0.60
Unity	Snake	T.				.06	.10						.22					.03					.19			.04					0.64
Vale	Malheur	.13	T.			.03	.03						T.						.05				.04	.10		.10		T.			0.48
Valley Falls	SE. Drainage	T.	.78			.06						.60						T.	T.	T.				.06	.05		.22		.15		1.92
Van	Malheur					.30							.31					T.					.45								1.06
Wallace Orchard	Willamette	.51				.51	.03	.02	T.		.21	.29	.43	.55	.21	.04		.14							.06						3.00
Walloupa	Grande Ronde	.07	.26			.07	.09	.03				.04	.11	.19	.07			.02	.01	.06			.20		.01	.01	T.				1.24
Wallowa	....do		.12			T.	.09					.04	.02	.02				.03	.04	.12			.10	.10	.05	.02					0.75
Wamic	Deschutes									T.	T.	.10				T.						.12				.12	.09				0.43
Warmspring	....do												.25												.10						0.35
Wasco	Columbia												.15					.01								.25	.05				0.46
Welches	....do	.50	1.00			.90	.10			.10			.80	.65				.60							.02	.20					4.87
Westfall	Malheur					.21							T.						T.				.16					.07	.03	0.47
Weston	Walla Walla	T.	.55			.07	.10				.05		.08		.71		.05		.20				.04			.60					2.45
Williams	Rogue													.70		.10	.30	.40	.10												1.60
Yonna	Interior Drainage		.10	T.		.08						.20	.12														T.				0.50

TABLE 3.—*Maximum and minimum temperatures at selected stations for February, 1911. District No. 12, Columbia Valley.*

Date.	Montana.				Afton, Wyo.		Idaho.																			
	Kalispell.		Missoula.				Boise.		Bonners Ferry.		Hotspring.		Lewiston.		Mackay.§§		Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.		Wallace.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	39	18	42	25	40	21	45	33	37	29	53	31	49	37	31	17	.....	.....	43	33	42	28	42	27	36	27	38	32
2....	37	14	42	20	39	21	46	17	34	18	52	29	39	23	35	19	.....	.....	43	16	38	25	39	20	34	8	36	20
3....	30	22	31	19	33	− 8	33	14	35	19	33	7	39	23	18	− 4	.....	.....	36	15	28	11	26	3	30	5	31	14
4....	36	20	33	16	19	− 9	35	18	41	16	34	11	43	26	25	− 2	.....	.....	29	14	23	3	37	14	33	10	32	19
5....	40	22	36	18	36	13	43	27	39	20	42	18	44	32	29	− 5	.....	.....	44	29	24	5	41	24	31	25	34	24
6....	35	19	39	20	33	12	37	26	38	23	44	23	43	31	30	0	.....	.....	39	22	23	15	40	28	31	− 6	31	20
7....	34	18	30	18	19	−12	35	24	37	20	37	22	43	28	23	− 1	.....	.....	29	10	23	7	28	2	25	0	31	19
8....	39	23	40	26	19	−20	37	22	38	21	37	20	45	28	22	− 3	.....	.....	32	6	22	− 2	28	4	25	4	39	30
9....	37	17	32	13	17	−19	43	21	43	22	40	32	44	29	22	− 5	.....	.....	33	7	12	− 6	31	10	26	0	36	15
10....	39	24	38	21	38	−17	50	28	41	26	43	29	47	34	30	0	.....	.....	43	10	28	3	36	15	28	5	43	27
11....	38	23	35	21	39	26	50	30	36	20	54	31	46	33	35	7	.....	.....	45	25	27	8	45	25	40	15	43	28
12....	36	28	38	21	41	13	39	25	39	22	50	30	44	28	32	8	.....	.....	36	24	30	18	40	20	35	17	37	23
13....	38	28	38	28	36	4	39	26	36	26	42	25	46	33	31	9	.....	.....	36	23	40	26	33	25	29	16	34	28
14....	31	21	35	20	27	4	34	24	40	23	32	16	39	33	20	− 1	.....	.....	25	12	30	15	28	0	23	− 2	32	26
15....	32	18	36	19	20	− 6	35	18	34	20	38	15	41	28	22	0	.....	.....	24	10	24	8	26	11	19	− 5	34	26
16....	34	19	38	14	15	−27	34	21	37	11	35	14	41	23	20	−10	.....	.....	23	7	20	5	27	0	22	−10	34	22
17....	36	14	29	7	14	−25	36	18	35	18	35	12	38	26	22	− 7	.....	.....	26	− 1	18	− 1	25	− 1	20	−15	36	9
18....	33	22	34	21	24	− 9	36	22	34	20	36	21	40	32	28	− 7	.....	.....	26	13	28	4	28	12	25	− 1	36	26
19....	35	12	32	14	30	− 6	36	27	39	5	40	22	43	27	24	12	.....	.....	30	17	32	11	31	17	26	− 1	34	11
20....	36	13	35	8	16	− 4	37	26	40	10	40	16	41	25	19	0	.....	.....	31	9	28	− 1	30	11	29	4	34	12
21....	34	10	29	10	26	− 7	38	21	44	8	40	18	45	23	22	− 5	.....	.....	32	10	24	− 1	31	12	26	1	33	14
22....	35	7	29	5	23	−15	33	26	38	5	42	18	41	30	19	− 9	.....	.....	31	9	20	− 2	30	6	36	− 8	36	12
23....	34	9	32	7	25	−10	31	23	39	5	36	21	39	28	20	− 2	.....	.....	36	17	22	0	31	20	31	−14	36	9
24....	18	6	25	3	25	−10	38	16	29	8	37	15	34	30	32	2	.....	.....	31	11	26	− 6	33	12	30	− 2	25	7
25....	32	16	34	20	26	4	32	21	40	13	30	18	36	23	26	7	.....	.....	28	20	30	13	32	21	26	8	34	19
26....	30	8	31	8	23	4	32	20	36	18	32	10	43	19	22	− 4	.....	.....	25	14	22	− 2	31	16	23	7	30	18
27....	27	− 4	26	4	18	−19	31	18	35	− 1	40	10	40	23	15	− 6	.....	.....	27	− 2	24	− 4	25	11	30	0	28	4
28....	26	− 3	22	− 3	25	−15	34	16	44	0	40	13	42	18	17	− 9	.....	.....	33	3	18	−10	31	16	30	− 5	32	5
Mns..	34.0	16.0	33.6	15.1	26.6	−4.1	37.5	22.4	37.8	15.9	40.0	19.5	42.0	27.6	24.7	0.0	.....	.....	32.7	13.7	25.5	6.1	32.3	13.6	28.5	3.0	34.2	18.5

Date.	Washington.																									
	Aberdeen.		Blaine.		Colville.		Kosmos.		Lakeside.		North Head.		North Yakima.		Odessa.		Port Crescent.		Seattle.		Sixprong.		Spokane.		Tacoma.		Tatoosh Island.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	39	30	38	31	37	27	40	32	35	19	42	30	50	30	43	30	37	23	41	30	48	34	40	31	40	30	39	29
2....	41	24	33	15	35	4	39	21	34	7	38	28	40	24	37	10	33	25	35	27	44	29	31	16	34	28	37	29
3....	45	26	33	23	32	19	39	18	25	10	42	31	42	24	39	21	38	28	43	28	45	26	34	23	43	27	40	32
4....	44	34	40	27	42	23	41	19	29	15	42	33	40	18	47	17	40	29	44	30	39	25	38	23	45	28	41	35
5....	41	31	42	35	41	16	39	31	34	16	42	34	46	21	43	22	39	27	42	33	43	28	39	30	43	34	40	34
6....	45	29	42	31	37	27	42	31	39	18	44	35	46	24	45	25	40	27	40	34	43	31	37	26	41	33	40	33
7....	46	38	42	34	35	9	41	30	32	17	43	36	48	25	44	24	44	30	45	36	45	30	35	25	45	36	44	36
8....	51	38	43	36	37	21	49	33	33	21	48	40	48	23	45	24	44	31	51	40	49	29	42	28	51	40	45	40
9....	44	32	45	33	37	19	42	29	35	22	44	40	44	24	43	21	44	31	44	40	47	28	41	26	44	37	46	42
10....	47	39	46	38	38	14	47	32	34	28	46	40	37	30	46	24	46	35	50	38	48	25	44	32	52	38	44	40
11....	47	35	46	35	36	26	47	32	42	30	43	36	46	32	44	27	44	30	45	36	48	31	38	30	44	35	41	34
12....	43	35	45	36	35	16	38	29	37	21	46	36	41	24	35	25	43	30	44	36	47	30	37	25	47	35	44	36
13....	42	36	43	35	37	32	38	32	41	23	44	36	40	27	37	23	44	33	44	35	38	31	36	31	43	35	43	38
14....	47	31	40	33	38	18	44	31	40	24	41	35	46	24	39	24	40	29	44	37	41	30	34	27	43	33	40	36
15....	41	27	42	29	33	29	43	25	39	22	43	35	44	19	41	22	40	28	44	31	41	24	32	21	44	30	43	35
16....	48	30	45	32	32	14	46	30	28	13	48	37	38	17	44	22	41	28	48	33	44	24	38	13	47	32	42	38
17....	50	37	44	30	33	23	43	30	30	18	48	42	39	22	40	21	48	35	48	36	40	29	31	16	49	34	47	34
18....	47	35	45	33	38	20	50	35	38	22	46	42	42	30	43	19	43	31	45	41	35	30	38	28	44	41	46	39
19....	48	30	44	28	38	8	53	31	38	24	45	36	45	26	42	24	42	28	46	36	41	28	39	22	45	34	44	38
20....	44	27	44	28	44	13	51	24	37	17	47	37	44	22	34	19	40	27	44	31	40	23	40	16	42	28	45	36
21....	48	34	45	36	42	7	44	35	35	21	48	40	41	24	43	20	44	34	47	41	40	26	40	20	46	36	44	40
22....	53	34	45	30	38	14	51	32	41	27	48	38	43	30	39	30	47	29	46	37	38	28	41	24	47	37	45	38
23....	54	28	44	26	41	6	55	25	38	17	47	38	46	24	.....	.....	44	26	50	31	40	24	40	15	50	28	46	36
24....	50	29	41	32	30	9	40	34	28	16	44	39	42	22	39	25	45	35	40	36	35	24	26	21	40	35	45	39
25....	48	27	48	27	38	14	43	32	39	17	44	37	42	24	40	− 2	45	28	45	35	37	26	37	20	44	34	47	37
26....	48	23	46	26	40	10	46	21	40	26	49	34	41	32	39	19	42	37	46	33	39	22	34	24	44	33	46	39
27....	55	31	52	28	40	− 1	46	25	36	23	50	33	39	19	40	12	45	29	50	31	37	23	34	17	46	33	49	39
28....	52	32	51	24	38	1	55	28	37	13	50	35	44	20	43	16	46	26	51	31	38	12	39	20	48	35	52	39
Mns..	46.7	31.5	43.4	30.4	37.2	15.6	44.7	28.8	35.5	19.5	45.1	36.2	43.0	24.3	41.3[a]	20.9[a]	42.4	29.6	45.1	34.4	41.8	26.8	37.0	23.2	44.7	33.5	43.8	36.5

TABLE 3.—*Minimum and maximum temperatures at selected stations for February, 1911. District No. 12*—Continued.

Date.	Walla Walla, Wash.		Oregon.																			
			Ashland.		Baker.		Eugene.		Gold Beach.		Hermiston.		Marshfield.		Portland.		Prineville.		Roseburg.		The Dalles.		Vale.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	52	32	45	33	.....	.....	51	40	50	48	60	34	45	40	45	33	48	30	46	32	49	34	43	26
2	32	20	41	29	.....	.....	44	26	50	32	49	24	46	31	37	30	40	9	40	24	41	28	42	27
3	38	23	33	26	.....	.....	46	28	52	37	55	20	47	27	40	27	44	14	45	29	43	27	32	11
4	40	18	34	25	.....	.....	37	30	46	34	47	14	46	34	44	28	44	20	47	36	40	23	37	12
5	45	33	40	31	.....	.....	45	34	47	39	54	27	45	35	44	36	.....	.....	44	35	45	30	37	19
6	42	33	40	29	.....	.....	41	33	48	34	49	30	46	32	45	35	39	22	45	31	46	28	39	13
7	44	34	41	26	.....	.....	44	33	47	29	51	25	50	30	47	36	40	20	46	30	47	30	34	11
8	47	35	46	27	.....	.....	51	29	50	29	54	21	52	29	52	35	39	12	51	29	49	26	35	8
9	40	26	42	30	.....	.....	51	33	50	34	46	16	51	32	48	33	.....	.....	50	32	44	27	36	9
10	53	29	48	37	.....	.....	56	38	52	31	49	28	53	42	47	39	43	13	56	39	43	32	38	20
11	54	34	42	32	.....	.....	52	34	53	34	47	35	49	35	46	36	44	30	48	30	48	36	46	28
12	48	32	46	35	.....	.....	49	35	52	35	52	19	50	30	44	34	47	11	51	30	42	26	39	16
13	42	32	45	29	.....	.....	45	33	47	34	51	32	46	37	39	34	40	20	42	33	49	31	41	29
14	41	33	37	26	.....	.....	40	30	43	31	49	35	43	32	44	34	37	15	42	31	44	33	37	26
15	44	33	40	19	.....	.....	42	30	47	32	49	18	50	31	44	36	34	10	46	27	44	24	39	17
16	46	30	45	24	.....	.....	48	30	52	32	52	18	54	32	51	35	38	14	51	29	47	26	37	12
17	40	26	41	36	.....	.....	53	34	55	44	44	17	56	42	52	34	44	23	55	33	45	30	34	15
18	34	27	44	32	.....	.....	52	32	50	36	39	30	53	33	50	38	45	25	51	32	42	31	44	20
19	34	24	47	37	.....	.....	55	32	52	36	45	25	55	31	50	33	40	25	50	31	47	26	41	25
20	40	24	58	30	.....	.....	50	26	52	28	45	13	57	29	50	32	36	24	53	25	48	23	39	25
21	44	25	50	30	35	11	50	28	52	28	46	16	56	27	47	38	40	23	57	25	45	32	39	17
22	34	29	46	29	29	11	57	31	50	29	43	30	49	31	50	37	38	27	48	28	47	35	38	24
23	32	23	49	29	32	10	49	26	51	32	41	29	55	30	51	33	38	20	50	26	45	25	38	15
24	37	21	40	25	30	7	49	28	50	34	37	18	47	28	40	35	34	15	42	25	43	26	42	9
25	32	18	39	28	28	17	47	30	50	32	40	19	48	36	46	34	39	23	43	31	42	32	37	19
26	30	16	42	21	27	10	46	28	46	31	36	12	47	29	47	33	32	17	42	29	44	23	36	21
27	28	13	37	22	24	3	45	25	53	29	42	12	51	33	42	37	35	7	48	22	42	27	38	17
28	28	11	46	31	31	− 1	45	23	55	34	35	8	56	31	47	36	35	4	52	24	42	18	36	11
Means	40.0	26.2	43.0	28.9	.....	.....	47.9	30.7	50.1	33.9	46.7	22.3	50.1	32.5	46.0	34.5	39.7[b]	18.2[b]	47.9	29.7	44.8	28.2	38.4	17.9

THE NORMAL TEMPERATURE OF PORTO RICO, WEST INDIES.

By OLIVER L. FASSIG, Section Director.

Porto Rico, in common with most of the islands of the Tropics lying within the limits of the trade winds, has a warm, but equable and comfortable climate. The small geographical extent of the island, the moderate elevation above sea level, and a constant wind, give to it a uniform temperature characteristic of marine climates. The island is about 100 miles long from east to west, with an average width of 40 miles, while the mean elevation is perhaps 600 feet to 800 feet above sea level. There is a narrow belt of lowland along the east and west coasts, and a broader belt along the north and the south coasts. The hills and mountains of the interior rise abruptly from the coastal plain to elevations varying from a few hundred to 3,500 feet. Of the 43 stations named in the accompanying table of average temperatures 20 are on the low coastal plain. The remaining stations have an average elevation of about 1,000 feet, of which 12 range in elevation between 1,000 feet and 2,500 feet.

Carefully made daily temperature observations extending over a period of five years in the Tropics, where changes are small, will yield an average annual value which is within a fraction of a degree of the true normal value. In Porto Rico the record of observations made under the auspices of the United States Weather Bureau began toward the close of the year 1898, and therefore covers a period of over 11 years. The average length of record per station is about 8 years; only a few of the stations enumerated in the accompanying table have a record of less than five years, while many of them have been in continuous operation since 1899.

In considering temperatures of the atmosphere it is essential to bear in mind that observations are always made in the shade; that is, the instruments are not exposed to the direct rays of the sun. This is a matter of special importance in discussing observations made in the Tropics, where the contrast between shade and sunshine is so much more marked than in higher latitudes. Disregard of this fact is apt to give rise to conflicting opinions regarding temperature conditions based upon personal impressions.

MEAN MONTHLY AND ANNUAL TEMPERATURES.

The simplest expression for the temperature of a region is its mean annual temperature for a series of years. The United States Weather Bureau generally derives this value from readings of the highest and lowest temperatures for every day of the year. The mean annual temperature for the island of Porto Rico as a whole is 76.3°, a comfortable and healthful temperature when accompanied, as it usually is in Porto Rico, by the fresh winds of the northeast trades, and a relatively high percentage of overcast skies. The stations on the coastal plain have a somewhat higher mean temperature, about

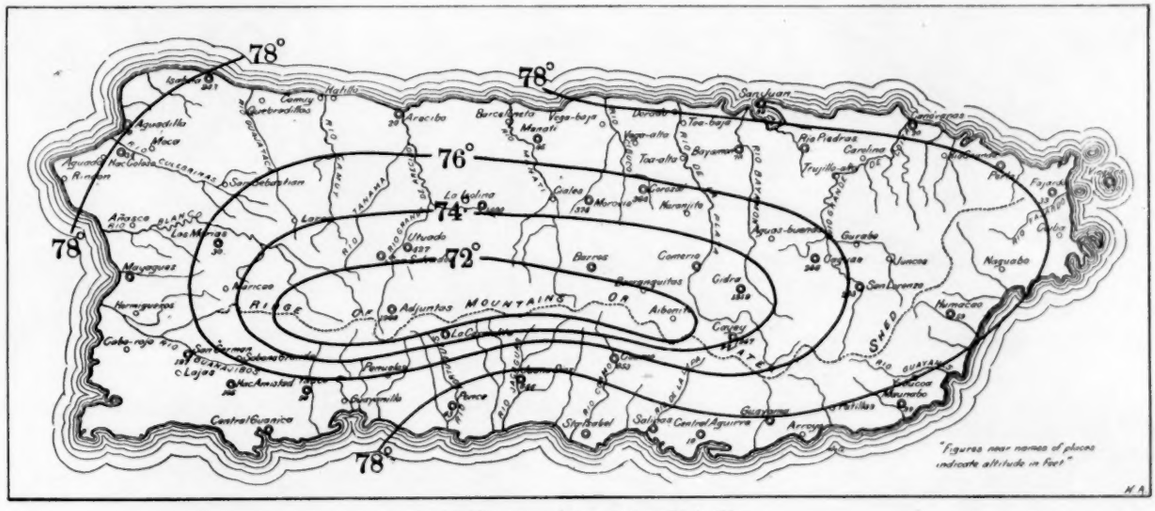


FIG. 1.—Mean annual temperature, Porto Rico.

78° along the north, west, and south coasts, and about 79° along the east coast. At inland stations the mean temperature is below 76°, varying from 76° to 72°, according to elevation above sea-level and other local conditions. The lowest temperatures are found, as usual, at the higher elevations, at stations from 2,000 to 2,500 feet above sea-level on the main divide, a range of mountains crossing Porto Rico from east to west a little south of the center of the island.

The average annual temperature of the island has varied but little from the normal during the past 12 years. In 1901, the warmest year of the period, the average was 1.3° above the normal, and in 1907, the coolest year, 0.9° below. The average temperature was above normal for the island as a whole from 1900 to 1903, inclusive, and normal or below from 1904 to 1910, inclusive. During the year 1910 the temperature continued below normal from January to November, inclusive,

The departures from year to year are indicated by the following figures:

1899, 0.5° below normal.
1900, 0.9° above normal.
1901, 1.3° above normal.
1902, 0.5° above normal.
1903, 0.4° above normal.
1904, 0.3° below normal.
1905, normal.
1906, 0.2° below normal.
1907, 0.9° below normal.
1908, 0.2° below normal.
1909, 0.3° below normal.
1910, 0.8° below normal.

The average difference between the highest and lowest mean annual temperature for all stations is 2.3°; at coast stations it is 2°, and at inland stations 2.8°.

AVERAGE WINTER AND SUMMER TEMPERATURES.

To those accustomed to the strong climatic contrasts of middle latitudes the difference between winter and summer temperatures in Porto Rico seems small and insignificant. While the figures do not show a marked change, the contrast is nevertheless very decided, as registered by the factor of personal comfort. Residence in the Tropics seems to make one more sensitive to slight variations in temperature, and changes which come and go unnoticed farther north are matters of general comment in the Tropics.

January is, on the whole, the coolest month, with a general average of 73°, while the month of August is, on the whole, the warmest, with an average of 79°. The differences between the mean temperatures of July, August, September, and October are, however, very slight, and are probably due to differences in the rate of the wind movement, or to variations in the amount of cloudiness.

During the winter months the mean daily temperature is 75° to 76° along the immediate coast, decreasing to 74° over most of the coastal plain. At inland stations the mean temperature ranges between 72° and 68°, depending upon the elevation of the station above sea-level.

During the summer and early fall the mean temperature along the coast is 80° to 81°, although it frequently rises to 82° or 83° along the east coast. At elevated inland stations the mean summer temperature varies from 74° to 76°. A fairly constant difference of 6° to 8° is maintained between the mean temperature of coast stations and the higher inland stations throughout the year.

AFTERNOON AND EARLY MORNING TEMPERATURES.

While the mean daily temperature does not vary greatly from month to month, the differences between the afternoon and the early morning temperatures, or the daily range, as it is called, is comparatively large. At stations on the immediate coast, like San Juan, or on the smaller islands, like Culebra and Vieques, the diurnal range is influenced by surrounding ocean temperatures and is quite small, from 10° to 11°. At all inland stations, and practically all the towns of Porto Rico are 2 or more miles from the coast, the mean daily range is from 20° to 25°, according to local topography. The diurnal range is a matter of great importance and has much to do with the personal comfort experienced. While the afternoon temperatures are comparatively high, the night and early morning temperatures are low enough to insure comfortable nights throughout the year.

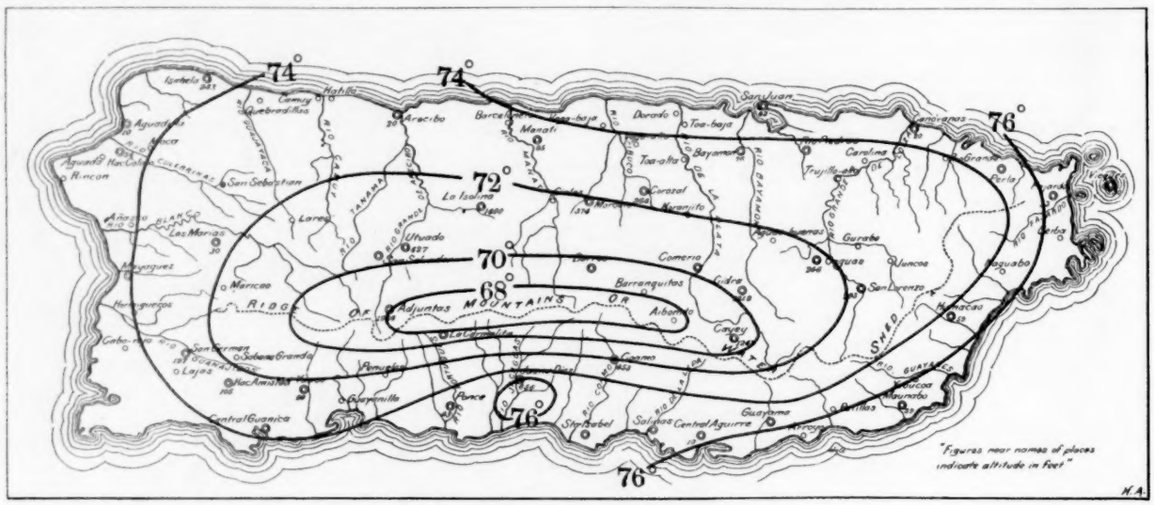


FIG. 2.—Mean January temperature, Porto Rico.

At stations along or near the coast the average daily maximum temperature is 87°, varying between 84° in winter and 89° in summer; the average daily minimum is 70°, varying between 66° in winter and 73° in summer. At inland stations the average daily maximum is 84°, with limits of 81° in winter and 87° in summer, and the average daily minimum is 65°, with limits of 61° in winter and 68° in summer.

Average daily maximum and minimum temperatures.

	January.		July.		Year.		Range.
	Max.	Min.	Max.	Min.	Max.	Min.	
Coast stations.	°	°	°	°	°	°	°
San Juan	80	70	86	75	84	73	11
Fagardo	85	68	88	75	86	72	14
Ponce	85	64	90	72	88	69	19
Mayaguez	86	62	90	68	88	65	23
Inland stations.							
Aibonito	76	58	84	68	81	62	19
Barros	77	58	86	67	82	63	19
Cayey	81	59	88	68	85	63	22
Coamo	86	62	91	70	89	66	23
Lares	83	58	90	64	87	62	25

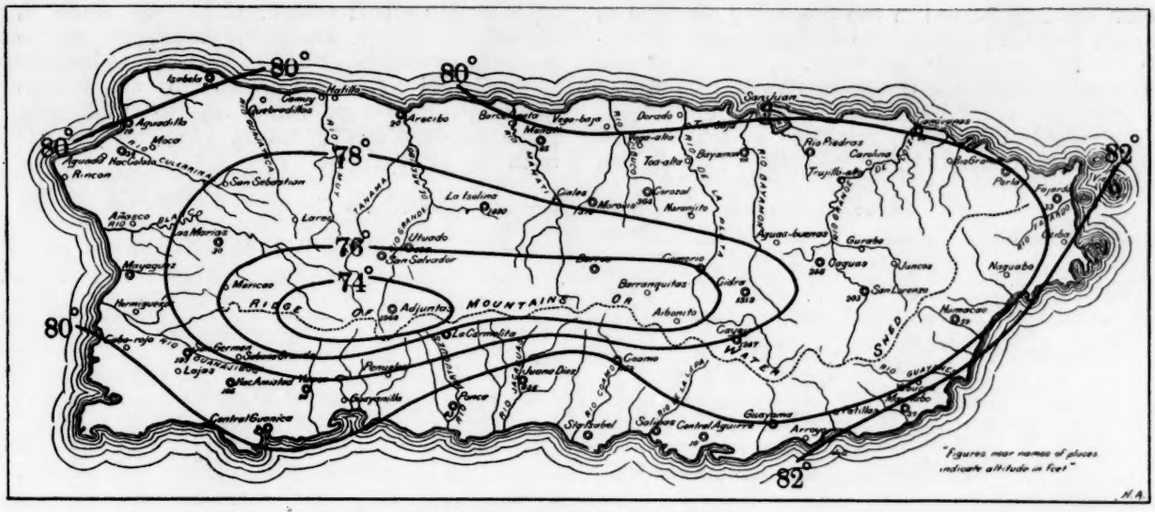


FIG. 3.—Mean July temperature, Porto Rico.

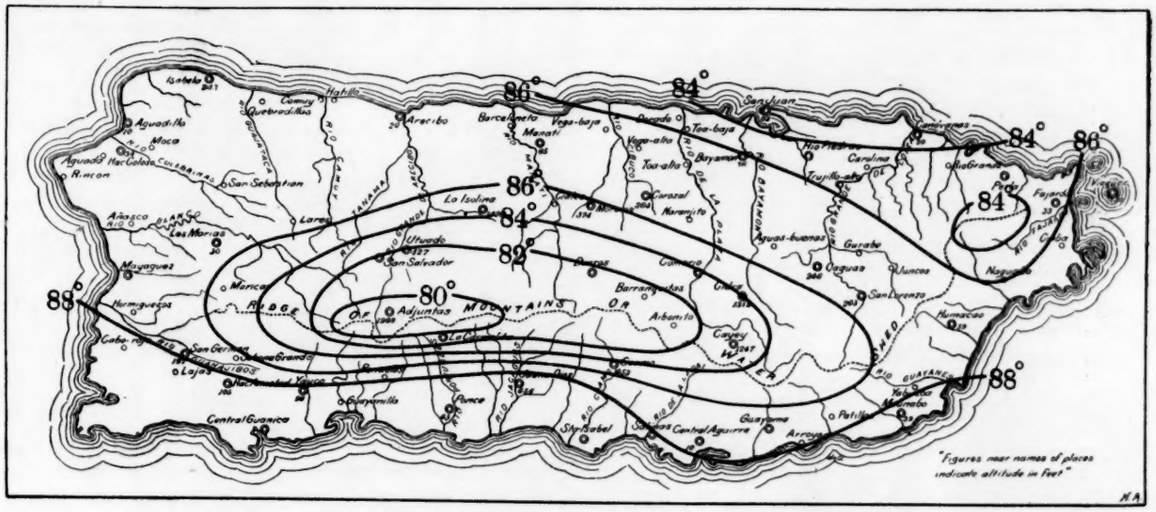


FIG. 4.—Mean daily maximum temperature (entire year), Porto Rico.

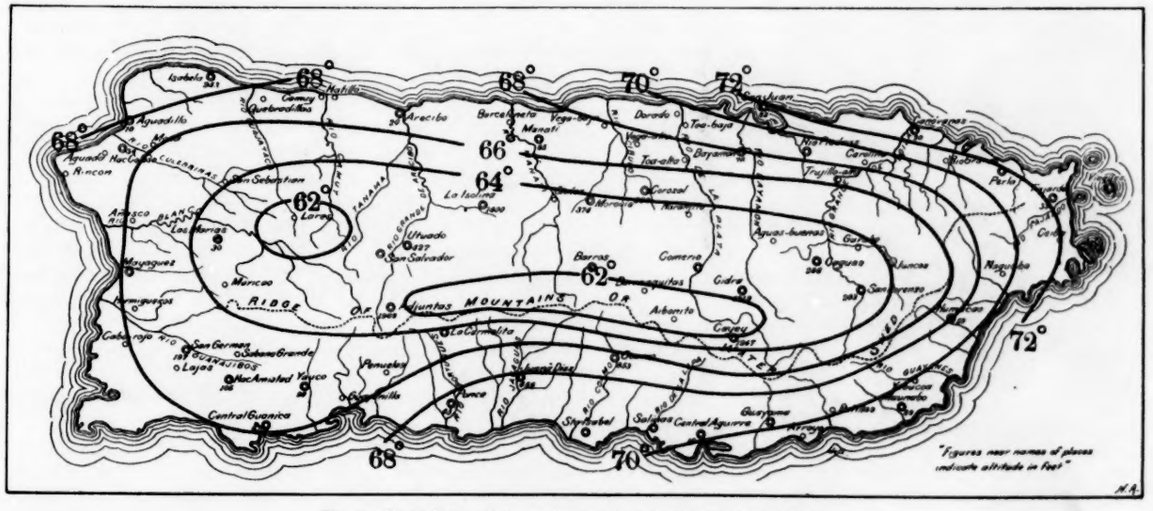


FIG. 5.—Mean daily minimum temperature (entire year), Porto Rico.

The temperatures quoted in the preceding paragraphs are *average* values and express the normal march of temperature from day to day and from month to month during a series of years and the normal variations during the course of the day. In the middle and higher latitudes, especially in regions far removed from the coast, such average values usually differ widely from the figures representing actual temperatures experienced upon any particular day; in the lower latitudes, and especially upon the smaller islands, like Porto Rico, large departures from normal conditions are exceptional, and the figures representing average values do not differ greatly from those expressing the actual temperatures experienced from day to day.

TABLE I.—*Data, mean monthly and annual temperatures, Porto Rico, W. I.*

	Stations.	Elevation in feet.	Number of years.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
		Feet.	*Years.*													
1	Adjuntas	1,700	8	68.7	68.8	**68.6**	**70.4**	72.7	**73.4**	**73.3**	74.5	74.2	73.2	72.3	70.1	**71.8**
2	Alto de la Bandera	2,572	3	69.4	69.4	70.0	73.2	73.2	74.7	74.4	**73.9**	73.7	**73.1**	71.3	70.3	72.2
3	Aguadilla (Coloso)	34	10	74.2	73.8	73.9	76.0	77.8	78.7	79.0	79.0	79.2	78.6	76.6	75.1	76.9
4	Aguirra	10	10	76.2	75.9	75.9	78.0	80.0	80.4	80.6	81.4	81.3	80.7	79.5	77.2	79.0
5	Aibonito	2,060	5	**67.0**	**67.6**	68.8	70.8	72.3	74.2	75.7	76.1	75.0	74.6	**71.1**	**68.0**	**71.8**
6	Anasco	25	4	75.5	74.6	75.2	76.2	78.2	78.8	78.8	78.9	78.6	79.0	77.8	75.3	77.3
7	Arecibo (Town)	20	7	73.9	73.7	74.5	75.9	78.2	79.3	79.4	79.7	79.7	78.9	77.3	74.5	77.1
8	Bacupey (near Arecibo)	1,000	4	70.4	70.4	71.1	72.6	74.5	75.6	77.1	77.4	76.7	76.4	74.6	72.6	74.0
9	Barros	2,000	7	68.5	68.6	69.3	71.2	73.5	75.6	76.2	76.3	74.5	73.8	72.3	70.4	72.5
10	Bayamon	75	11	73.7	74.1	74.5	76.1	77.9	78.5	78.9	79.3	79.6	78.9	77.8	75.2	77.0
11	Caguas	250	11	71.8	72.1	72.7	75.2	77.6	78.4	78.5	78.8	78.5	77.1	75.6	72.7	75.8
12	Canovanas	20	11	75.0	75.8	76.5	**78.4**	80.1	80.5	80.7	80.9	80.7	79.8	78.0	75.7	78.6
13	Carmelita (1)	1,550	7	70.8	71.0	70.8	71.9	72.5	74.5	75.4	75.9	75.1	74.8	73.9	72.4	73.3
14	Cayey	1,300	10	69.6	70.3	70.5	72.5	74.9	76.8	78.7	78.2	77.0	76.3	74.4	71.8	74.3
15	Cidra	1,300	10	70.0	71.1	70.6	72.9	74.4	74.8	76.1	76.4	**73.4**	74.9	73.9	71.0	73.5
16	Coamo	850	7	73.4	74.4	75.4	76.8	77.4	78.6	80.5	81.1	79.5	79.0	77.9	75.9	77.5
17	Comerio	600	4	71.4	71.1	70.9	74.0	77.6	77.6	78.2	78.3	78.5	77.6	75.2	73.2	75.3
18	Corozal	600	11	72.7	73.4	72.9	75.0	76.9	78.0	78.5	78.7	79.1	78.6	76.9	74.3	76.3
19	Culebra	50	3	76.1	75.8	**77.4**	77.7	79.6	81.0	81.2	81.3	81.4	80.6	78.9	77.1	79.0
20	Fajardo	15	11	**77.0**	76.6	76.8	78.4	**80.4**	80.9	81.6	82.3	81.4	80.7	79.6	77.2	79.4
21	Guanica	50	8	73.8	74.5	75.3	76.2	77.8	79.9	79.0	79.5	79.6	78.8	76.9	74.9	77.2
22	Humacao	60	4	72.6	72.6	74.2	75.6	78.0	78.8	79.2	79.5	79.2	78.5	76.9	74.3	76.6
23	Isabela	250	11	75.2	75.2	75.5	76.9	78.2	79.4	80.4	80.2	79.8	79.3	78.4	76.3	77.9
24	Isolina	1,400	11	71.2	71.8	71.5	73.2	74.9	76.5	77.2	77.3	76.8	75.9	74.8	72.1	74.4
25	Juana Diaz	200	10	76.1	76.0	76.9	78.0	78.8	79.9	80.9	80.9	80.9	80.0	79.0	77.7	78.8
26	Lajas	105	3	74.0	76.5	75.8	76.6	78.5	78.8	79.6	79.2	79.0	77.8	75.9	73.9	77.1
27	Lares	1,425	7	70.8	70.9	71.8	73.4	75.3	76.6	77.0	77.4	76.7	76.2	74.7	71.8	74.4
28	Las Marias	1,000	9	72.5	72.8	72.8	73.8	75.7	76.9	77.3	77.7	77.3	76.8	75.8	73.3	75.2
29	Laquillo (1)	460	8	73.8	74.4	74.8	76.9	79.1	79.3	79.6	80.6	80.0	78.9	77.3	75.6	77.5
30	Manati	85	11	73.8	74.4	74.7	76.4	78.4	79.6	80.2	80.7	80.1	79.1	77.2	74.7	77.4
31	Maricao	1,400	3	70.7	69.2	69.8	70.6	**72.2**	73.6	74.3	75.1	74.9	74.7	73.0	70.9	72.4
32	Maunabo	40	10	76.6	**76.7**	77.1	**79.0**	80.2	**81.7**	**82.2**	**83.0**	**81.9**	**81.2**	**79.7**	**77.9**	**79.7**
33	Mayaguez	20	10	74.4	74.7	75.1	76.4	78.1	78.9	79.2	79.5	79.6	79.2	77.7	75.8	77.4
34	Morovis	375	8	72.7	72.6	72.4	75.4	77.0	77.8	78.1	78.7	78.1	77.5	76.2	72.8	75.8
35	Ponce	50	10	75.1	75.0	75.8	77.5	79.1	80.2	80.3	81.2	80.7	80.1	78.8	76.5	78.3
36	Rio Blanco	250	6	73.6	74.2	74.7	76.2	77.7	78.6	79.4	79.5	79.1	78.6	77.3	75.2	77.0
37	San German	200	9	73.9	74.4	74.5	75.8	77.6	78.8	80.0	80.1	80.2	79.5	77.9	75.7	77.3
38	San Juan	82	11	75.3	75.4	75.5	77.2	78.4	80.0	80.2	80.6	80.7	80.1	78.4	76.4	78.2
39	San Lorenzo	200	8	72.9	72.7	73.6	76.2	78.0	78.8	78.8	79.4	79.0	78.0	76.7	73.7	76.5
40	Santa Isabel	22	9	**74.7**	74.9	75.6	77.3	78.8	79.9	80.4	81.0	80.5	80.0	78.3	75.7	78.1
41	Utuado (San Salvador)	1,500	9	70.4	70.2	70.3	71.9	73.9	75.2	75.5	75.7	75.4	75.0	73.2	70.9	73.1
42	Vieques Island	45	11	76.1	76.3	76.9	77.8	79.7	80.1	81.1	81.3	81.0	80.7	78.9	76.8	78.8
43	Yanco	200	10	73.8	74.0	74.4	76.7	79.2	80.0	79.5	80.1	79.9	79.1	77.3	75.2	77.4
	Means			**73.0**	73.2	73.6	75.3	77.1	78.1	78.7	**79.0**	78.5	77.9	76.4	74.2	76.3

NOTE.—Maxima and minima are in bold face figures.

WEATHER, FORECASTS, AND WARNINGS, FEBRUARY, 1911.

By EDWARD H. BOWIE, in Charge, Forecast Division.

In the Icelandic area the barometric pressure was much above normal from the 1st to the 8th and near or below the normal thereafter. The principal depressions occurred on the 10th, 13th, 22d, and 28th, and on the last two dates the barometric readings were below 29 inches. The pressure over the middle latitudes of the north Atlantic Ocean, as shown by the daily reports from the Azores and Bermuda, fluctuated materially and was above the normal during the greater part of the month; the lowest pressure recorded in the Azores was on the 3d to 7th. High barometric pressure persisted over much of Europe until the 17th, when pronounced areas of low barometer attended by stormy weather prevailed over wide areas. Westerly gales on the 17th caused the loss of a number of vessels and lives along the German coasts, and on the 24th to 27th strong gales swept the North Sea.

Over Siberia the pressure averaged slightly above the normal for the month, and there were few well-defined barometric minima, although the pressure was considerably below the normal after the 21st.

In Alaska the barometric variations were large, but readings were generally below the normal except on the 1st, 3d to 5th, and after the 20th, except at Nome where low pressure continued until the close of the month. The principal disturbance of the month over Alaska prevailed on the 22d to 25th.

In the United States the month opened with a well-defined barometric depression over the middle Missouri Valley. This disturbance moved rapidly eastward and on the 2d was over Lake Ontario and on the 3d over the Canadian maritime provinces. During its eastward movement this depression caused high winds and heavy snows in the border States from North Dakota to New England, and was followed by a pronounced change to lower temperature on the 1st and 2d over the northern plains States, the upper Mississippi and Ohio Valleys, and the region of the Great Lakes. On the 1st and 2d unusually high temperature prevailed in the Southern States, and on the former date in the middle Mississippi Valley at a number of points the previous records of high temperature for the month of February (1871–1910) were broken. Cold-wave warnings were ordered on the 1st for the Chicago forecast district and Indiana, Ohio, and Michigan, and on the evening of that date storm warnings were displayed on the Atlantic coast from Sandy Hook to Eastport; and on the Pacific coast from Eureka to San Francisco, in connection with a disturbance that moved from the north Pacific coast on the 1st to Idaho on the 2d. On the 3d this disturbance was over Kansas and on the morning of the 4th over the lower lake region, whence it moved in 24 hours to the north Atlantic coast. During the night of the 3d and 4th this disturbance caused general precipitation east of the Mississippi River, which was in the form of rain and snow in the region of the Great Lakes and in the Middle Atlantic and New England States. An unusual number of thunderstorms occurred the night of the 3d in the Ohio Valley, the east Gulf, and in the Atlantic States as far north as southern New England. Storm warnings were ordered for the east coast of New England at 9.30 a. m. of the 4th, and high shifting winds followed during the afternoon. Another well-defined storm area made its appearance the night of the 3d on the California coast and on the morning of the 4th its center was over Nevada. Heavy rains fell in California and rains and snows occurred in Nevada, Utah, western Colorado, and northern Arizona.

The following weekly forecast was issued February 5, 1911:

> The coming week will be marked by a series of well-defined storm areas passing eastward across the United States from the Pacific Ocean in consequence of which periods of fair and foul weather will follow in quick succession. * * * Marked variations in temperature will occur in practically all districts east of the Rocky Mountains.

On the morning of the 5th the center of the disturbance that appeared on the California coast on the 3d was over Kansas and on the afternoon of this date heavy snows set in over the upper Mississippi and Missouri Valleys and during the following night the area of heavy snow spread eastward over the Great Lakes. On the morning of the 5th warnings of high winds and snows were sent to the upper lake region and advisory warnings of high winds and snow were issued for Lake Michigan. On the afternoon of the 5th, a warning of snow and probably sleet was issued for Indiana, Ohio, and western Pennsylvania. The disturbance moved directly eastward, being central over Illinois on the 6th and the lower lake region on the 7th. It caused heavy snows over the Northern States east of the Mississippi River on the 6th and 7th, warnings of which were issued well in advance of their occurrence. On the 6th, northeast warnings were displayed on the Atlantic coast from Delaware Breakwater to Eastport and on the 7th warnings were continued from Block Island to Eastport. On the night of the 6th the winds on the north Atlantic coast became northeast and east and increased to the force of a gale, with snow, and continued until the night of the 7th. On the 8th this disturbance had passed to the Grand Banks with diminished intensity. A minor disturbance crossed the northern Rocky Mountain Range the night of the 6th and moved in a southerly direction to the west Gulf States, whence a secondary disturbance moved to the upper Ohio Valley on the 8th. General rains fell on the 8th in the Ohio Valley, Tennessee, and the east Gulf States, and during the day overspread the Atlantic States. The rainfall was heavy in Tennessee and the northern portions of the east Gulf States. On the 9th the center of this disturbance was over the South Atlantic States and there were rains and snows on this date throughout the Atlantic States. Following this disturbance the pressure increased decidedly and on the 10th the temperature was below freezing as far south as Tennessee and near freezing in the extreme northern portions of Mississippi Alabama, and Georgia.

On the 9th the pressure fell rapidly over southern Alaska, and on the 10th a disturbance was shown by the weather map off the coast of Washington. On the morning of the latter date storm warnings were displayed on the Washington and Oregon coasts and later in the day they were ordered for the California coast. High winds were recorded in the area covered by the warnings the afternoon and night of the 10th, the highest velocity reported being 60 miles an hour at North Head. This disturbance covered the plateau region on the 11th and on the same date a secondary disturbance developed over the western part of the Gulf of Mexico, which caused general rains in the Gulf and southern plains States, and snow and sleet in Tennessee, and the lower Ohio and middle Mississippi Valleys. At 9.30 a. m., southeast

storm warnings were displayed on the Mississippi, Alabama, and northwest Florida coasts. This secondary depression moved directly eastward and passed off the south Atlantic coast during the 12th, being attended by general precipitation throughout the Southern States. The pressure remained abnormally low during the 10th, 11th, and 12th over the Northwestern States, the north Pacific Ocean, and Alaska, and on the morning of the 12th a disturbance of considerable intensity was off the north Pacific coast. Storm warnings were displayed from San Francisco northward on the 12th and were continued on the 13th.

The following weekly forecast was issued February 12, 1911:

The barometric pressure distribution over the North American Continent and the adjacent oceans is such as to indicate that temperatures will average considerably above the normal in the region east of the Rocky Mountains during the greater part of the coming week; west of the Rocky Mountains, temperatures will average near or below the normal. The principal disturbance of the week will prevail during the next several days west of the Rocky Mountains, cross the Middle West Wednesday or Thursday and the Eastern States the latter part of the week. This disturbance will be attended by general precipitation and be followed by a change to colder weather in northern and central States east of the Rocky Mountains.

On the morning of the 13th a disturbance began to develop over the southern plains States, being quickly followed by a general increase in cloudiness in the Middle West and rains set in over the Mississippi Valley and the plains States. On the 14th the center of this disturbance was over Iowa and the area of precipitation had overspread practically all districts from the Mississippi and Missouri Valleys eastward, there being snows in the northern States from the lake region eastward and thunderstorms in the upper Mississippi Valley. Storm warnings were displayed on the 13th on the west Gulf coast, and on the 14th northeast warnings were ordered for the southern coasts of New England and advisory warnings were issued to the open ports on Lake Michigan. Low temperatures overspread the Pacific coast on the night of the 13th and snow fell in northern California, where temperatures were as low as the freezing point. Frost warnings were issued for all of California the night of the 14th and on the 15th and 16th, on which dates and also on the 17th abnormally cool weather prevailed at all California stations. The barometric pressure increased decidedly over the St. Lawrence Valley on the 15th and 16th and abnormally low temperatures were recorded in New England on those dates. On the 16th the pressure began to fall rapidly over the upper Mississippi Valley where there were rains and thunderstorms, and on the morning of the 17th a low appeared over the Great Lakes which moved rapidly eastward, attended by rains and snows in Northern States, and passed to the Canadian maritime Provinces on the 18th. The pressure remained low during the 16th, 17th, and 18th in the Southern and Western States, causing general rains in those regions and rains and snows in the middle plains States, the Mississippi and Ohio Valleys and the middle Rocky Mountain region. The precipitation that occurred in connection with this disturbance afforded much-needed relief from the long-continued drought in the southern plains States and western Texas.

The following weekly forecast was issued February 19, 1911:

The coming week will be one of low temperatures in practically all districts east of the Rocky Mountains and generally fair weather preceded, however, by snows in Northern and Central and rains in Southern States east of the Mississippi River Monday and Monday night. An extensive area of cold weather that covers the plains States and the Northwest will advance eastward and southward and cause frosts and freezing temperatures Monday and Tuesday in the Gulf States and Tuesday and Wednesday in the South Atlantic States except southern Florida.

On the 19th the center of a disturbance was over the lower Mississippi Valley and the precipitation attending it was widespread; there being a continuation of heavy rains in the Southwestern States and snows in the southern Rocky Mountain region, the middle plains States, and the middle Mississippi Valley. On the morning of the 19th warnings of heavy snow were issued for Missouri, Illinois, Indiana, Ohio, western Pennsylvania, West Virginia, and northern Kentucky, and storm warnings were displayed on the middle and west Gulf coasts. This disturbance moved rapidly northeastward and reached the middle Atlantic States the morning of the 20th and passed to the Canadian maritime Provinces in the next 24 hours. Storm warnings were ordered for the Atlantic coast from Delaware Breakwater to Boston on the 19th. The barometric pressure continued to increase in the Northwest from the 18th to 21st, and on the latter date the highest reading, 31.10 inches at Miles City, Mont., was recorded. This high carried colder weather with freezing temperature and frosts to the Gulf and south Atlantic States. Ample warnings were issued to all interests likely to be affected by freezing temperature and frosts. The importance of such warnings was made most urgent because of the advanced state of vegetation throughout the Southern States due to an unusually long period of high temperatures in these States. At the time that the cold wave with freezing temperatures overspread the Southern States fruit trees were in bloom as far north as Arkansas and Tennessee. There was considerable damage because of the freeze, detailed reports of which will be found elsewhere in this number of the Review.

The following weekly forecast was issued February 26, 1911:

Low temperatures will prevail over much of the country during the coming week, as a result of abnormally high barometric pressure over Alaska and the British Northwest. The principal disturbance to cross the country during the coming week is now over the western plateau region; it will cross the Middle West Monday night and Tuesday and reach the Atlantic States Tuesday or Wednesday; it will be attended by snows in northern, rains and snows in middle, and rains in southern States from the Rocky Mountains to the Atlantic coast during the first half of the week.

A disturbance of moderate intensity developed in the Northwest on the 24th; on the 25th it was central over the Missouri Valley, on the 26th over the Great Lakes, and on the 27th over the lower St. Lawrence Valley.

This disturbance was preceded by a general rise in temperature and attended by local rains and snows in the Mississippi Valley and over the Great Lakes, and by rains over the Ohio Valley and at scattered points in the Gulf States. The pressure increased decidedly in the Northwestern States on the 25th and 26th and colder weather overspread this region on these dates, and by the 27th the area of falling temperature advanced eastward to the Atlantic States and southward to the northern portions of the Gulf States. Cold-wave warnings were issued the morning of the 26th for the extreme upper Mississippi Valley and northern Michigan and on the 27th for northern New England and extreme northern New York. On the 26th and 28th the southern Rocky Mountain Plateau was under the influence of low barometric pressure and snows were general over the southern Rocky Mountain and plateau regions and rains fell in California. Snow flurries occurred in central Cali-

fornia on the 27th. On the 28th the area of snows spread from the Rocky Mountains eastward over the southern plains States to the Ohio Valley and Tennessee.

Average temperatures and departures from the normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since January 1.	Average departures since January 1.
		°	°	°	°
New England	12	23.2	−2.5	+ 0.8	+0.4
Middle Atlantic	15	34.4	−1.7	+ 3.1	+1.6
South Atlantic	10	51.5	+3.7	+ 8.3	+4.2
Florida Peninsula*	8	65.0	+3.4	+ 7.5	+3.8
East Gulf	11	56.9	+6.0	+12.3	+6.2
West Gulf	10	55.6	+6.4	+14.5	+7.2
Ohio Valley and Tennessee	13	41.5	+5.3	+11.2	+5.6
Lower Lakes	10	26.8	+2.4	+ 5.7	+2.8
Upper Lakes	12	24.6	+5.6	+ 7.4	+3.7
North Dakota*	9	6.1	+0.3	− 6.8	−3.4
Upper Mississippi Valley	14	31.1	+6.5	+ 9.7	+4.8
Missouri Valley	12	29.6	+5.2	+10.6	+5.3
Northern slope	9	19.3	−2.2	− 0.4	0.0
Middle slope	6	34.7	+2.4	+10.2	+5.1
Southern slope*	8	46.2	+4.1	+11.9	+6.0
Southern Plateau*	11	41.7	−2.2	+ 2.9	+1.4
Middle Plateau*	10	28.2	−1.0	+ 4.5	+2.2
Northern Plateau*	10	27.6	−3.0	− 2.1	−1.0
North Pacific	7	39.2	−1.5	− 3.1	−1.6
Middle Pacific	5	46.5	−3.2	− 2.6	−2.3
South Pacific	4	50.2	−3.2	0.0	0.0

* Regular Weather Bureau and selected cooperative stations.

Average precipitation and departures from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since January 1.
		Inches.		*Inches.*	*Inches.*
New England	11	2.79	85	−0.5	−1.5
Middle Atlantic	15	2.02	63	−1.2	−1.3
South Atlantic	11	1.18	29	−2.9	−5.3
Florida Peninsula*	8	0.17	6	−2.9	−4.8
East Gulf	11	2.53	53	−2.2	−4.0
West Gulf	10	2.54	86	−0.4	−2.9
Ohio Valley and Tennessee	13	2.68	75	−0.9	−1.0
Lower Lakes	10	2.63	108	+0.2	0.0
Upper Lakes	12	2.07	124	+0.4	−0.2
North Dakota*	9	0.98	204	+0.5	+0.9
Upper Mississippi Valley	15	2.45	140	+0.7	+0.3
Missouri Valley	12	2.71	268	+1.7	+1.1
Northern slope	9	0.69	87	−0.1	+0.4
Middle slope	6	2.35	313	+1.6	+1.0
Southern slope*	8	2.92	288	+1.9	+1.2
Southern Plateau*	11	1.35	142	+0.4	+0.9
Middle Plateau*	11	1.61	133	+0.4	+1.2
Northern Plateau*	10	0.89	60	−0.6	−0.9
North Pacific	7	2.58	43	−2.9	−3.3
Middle Pacific	7	2.77	66	−1.4	+4.9
South Pacific	4	3.46	141	+1.0	+5.4

* Regular Weather Bureau and selected cooperative stations.

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	73	− 2	Missouri Valley	76	+ 1
Middle Atlantic	74	0	Northern slope	74	+ 3
South Atlantic	77	+ 1	Middle slope	67	0
Florida Peninsula	81	+ 1	Southern slope	63	− 5
East Gulf	76	0	Southern Plateau	63	+19
West Gulf	73	− 1	Middle Plateau	71	+ 7
Ohio Valley and Tennessee	76	+ 2	Northern Plateau	70	− 5
Lower Lakes	79	− 1	North Pacific	79	− 2
Upper Lakes	80	− 2	Middle Pacific	75	− 1
North Dakota	90	+10	South Pacific	71	+ 2
Upper Mississippi Valley	77	0			

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	6.2	+0.9	Missouri Valley	4.9	−0.3
Middle Atlantic	6.3	+0.8	Northern slope	4.4	−0.7
South Atlantic	4.9	−0.4	Middle slope	4.8	+0.4
Florida Peninsula	3.6	−0.7	Southern slope	6.2	+1.4
East Gulf	6.2	+0.6	Southern Plateau	4.5	+0.9
West Gulf	6.1	+0.5	Middle Plateau	5.4	+0.3
Ohio Valley and Tennessee	6.5	+0.3	Northern Plateau	6.1	−0.1
Lower Lakes	7.3	+0.5	North Pacific	6.0	−1.1
Upper Lakes	6.9	+0.6	Middle Pacific	4.6	−1.0
North Dakota	3.9	−1.1	South Pacific	4.3	0.0
Upper Mississippi Valley	5.8	+0.6			

Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Block Island, R. I.	4	52	se.	North Head, Wash.	10	64	se.
Do.	7	52	e.	Do.	12	84	se.
Do.	27	50	nw.	Do.	13	60	sw.
Buffalo, N. Y.	2	56	sw.	Do.	24	55	nw.
Do.	23	64	sw.	Do.	25	50	nw.
Do.	24	52	sw.	Pensacola, Fla.	19	60	s.
Burlington, Vt.	17	54	s.	Point Reyes Light, Cal.	1	51	s.
Detroit, Mich.	6	50	e.	Do.	10	65	s.
Duluth, Minn.	21	55	w.	Do.	12	54	s.
Do.	22	56	w.	Do.	13	70	nw.
Eastport, Me.	4	50	se.	Do.	23	52	nw.
Memphis, Tenn.	3	50	nw.	Do.	24	82	nw.
Mount Tamalpais, Cal.	10	50	sw.	Do.	25	83	nw.
Do.	12	52	sw.	Do.	26	59	nw.
Do.	24	62	nw.	Do.	28	50	sw.
Do.	25	66	nw.	Sioux City, Iowa	1	51	nw.
Do.	26	50	nw.	Southeast Farallon, Cal.	10	54	sw.
Mount Weather, Va.	2	64	nw.	Do.	13	50	nw.
Do.	10	54	w.	Do.	24	53	nw.
Do.	20	68	nw.	Do.	25	62	nw.
Do.	21	54	w.	Syracuse, N. Y.	2	55	s.
Do.	23	50	nw.	Tatoosh Island, Wash.	4	50	s.
Do.	24	50	w.	Do.	12	60	s.
Do.	28	52	nw.	Do.	13	62	se.
Nantucket, Mass.	7	52	e.				
North Head, Wash.	4	58	se.				

RIVERS AND FLOODS, FEBRUARY, 1911.

By Prof. H. C. FRANKENFIELD, in charge of River and Flood Division.

During the month of January, 1911, rainfall and snowfall over the State of California were practically continuous and abnormally heavy, and by January 18 a general rise had set in over all the rivers of the State. A description of the antecedent conditions as well as detailed data for the month of January will be found in the report of District No. 11 in the Monthly Weather Review for that month, and need not be repeated here. It is well to note, however, that the average precipitation in the State of California for the month of January, 1911, was 13.20 inches, or 7.79 inches above the normal amount, while snowfall to the amount of 400 inches was reported at Tamarack, Cal., with a total water precipitation for the month of 39.80 inches.

The following report on the floods was prepared by Mr. N. R. Taylor, official in charge of the local office of the Weather Bureau at Sacramento, Cal.:

Until about January 12 all streams in the central valleys of California showed little departure from the unprecedentedly low stages that had been general during the past few months, but on the date referred to the Sacramento River below Redding, and the eastern tributaries of this stream, began responding to the rains that prevailed throughout the Sacramento watershed from the 9th to 15th, inclusive. While the rains of the San Joaquin watershed were practically identical with those of the Sacramento little effects were noted in the stages of the rivers in the section first named.

By January 17 a general fall was in progress throughout the rivers of both watersheds, but the heavy, warm rains that occurred between January 18 and 21 resulted in rapid rises in the Sacramento, American, Feather, and Yuba rivers, and increased the run-off of the tributaries of the San Joaquin.

On January 20 advisory messages were telegraphed to points on the Sacramento River between Colusa and Knights Landing indicating the approach of a heavy rise in the river during the next two or three days. By the morning of January 21 the Sacramento at Colusa had risen to a stage of 19.4 feet, a rise of over 14 feet in 24 hours, and by the morning of January 22 the river at Knights Landing had risen to 13.4 feet. Heavy rises also occurred in all the eastern tributaries, except Pitt River, with freshets in many of the smaller forks of the Feather-Yuba system.

From January 24 until February 1 general and heavy rains occurred over both watersheds, and during the greater part of this period rain fell heavily along the western flanks of the Sierra Nevadas as high as the 5,000-foot level, melting a large amount of the snow that had accumulated since January 9.

On January 24 warnings of heavy rises were telegraphed to Bellota and Stockton for distribution to points along Mormon Slough, and by the evening of January 25 this stream had overflowed its banks between Linden and Bellota, inundating several thousand acres of farm land. The Government Drainage Canal, which diverts the water of Mormon Slough back into the Calaveras River below Stockton, protected the city of Stockton from overflow.

On January 28 advisory messages were telegraphed Colusa to the effect that all new levees should be watched during the next two or three days, and on January 29 this advice was also telegraphed our observer at Knights Landing and given verbally to the official in charge of the Sacramento levees. This advice was followed in all cases, and it has been stated that some of the new levees, that had not been tried since their construction after the floods of 1909, were probably saved as a result of the warnings.

On January 30 it became evident that the heavy rains and rapidly melting snows would result in critical conditions in the lower Sacramento Valley between Colusa and Walnut Grove and that serious floods would occur in the valley of the San Joaquin. On the morning of this date advisory messages were telegraphed to points on the Sacramento indicating heavy rises between the mouth of Stony Creek and Sacramento City, and warnings were wired to Stockton, Bellota, and Galt to the effect that dangerous floods would occur in the vicinity of Stockton, along Mormon Slough, between Linden and Stockton, and over a large section of the country contiguous to the junction of the Mokelumne and Cosumnes rivers. During the afternoon of January 30 general flood warnings were issued for the San Joaquin River from the mouth of the Calaveras northward to Mendota and Firebaugh indicating heavy and damaging floods for all lands subject to overflow between those points. By the morning of January 31 the Sacramento River was dangerously high from Monroeville to the mouth of the American, and critical stages were reported from many points in the Feather and Yuba above Marysville, and in the American above Fair Oaks. By the afternoon of this date over 10,000 acres of land were overflowed in the vicinity of the junction of the Mokelumne and Cosumnes rivers with the combined overflow of these streams rapidly backing up along the east side of the Sacramento River, and it has been estimated that an area comprising 75,000 acres was under water between the junction of the Calaveras and Mormon Slough and the city of Stockton.

At this time the flood waters of the Merced, Stanislaus, and Tuolumne rivers had reached the San Joaquin River and an immense flood wave was moving rapidly down this stream. This flood reached the lowlands in the vicinity of Lathrop and San Joaquin Bridge by the morning of February 1, and by night of that date many levees had given way and many thousands of acres were flooded. The river observer's house, located near San Joaquin Bridge, was washed away, and many other residences in that vicinity were either washed from their foundations or else undermined by the water. By promptly spreading the warnings sent from this station the Lathrop observer saved hundreds of head of valuable stock. About 10,000 acres were flooded in the vicinity of Firebaugh and Mendota, mostly the property of the Miller & Lux Co., but the warnings sent to the agent of this company gave ample time for the saving of all stock.

By the morning of February 2 the flood had spread over a large territory between San Joaquin Bridge and Roberts Island, destroying many miles of levees and inundating thousands of acres of reclaimed land, and considerable water had backed into Stockton from the lower Calaveras and from the overflow of Mormon Slough. The diverting canal, mentioned in another part of this report, undoubtedly saved Stockton from a damaging flood, as the floods in the surrounding country were the most disastrous and widespread ever recorded in the San Joaquin Valley.

It is estimated that nearly 300,000 acres of land were under water from the night of January 31 until February 2.

On the morning of February 2 the water had commenced to subside, but it was not until February 5 that normal conditions prevailed.

Advisory messages were sent to the lower island districts indicating that all levees should be patrolled, but with the exception of a rise of about 2 feet the delta lands showed little effects of the floods that prevailed above, which is probably due to the fact that the flood waters spread over such a large area and that much of the overflow was impounded, so that the run-off was gradual, especially between the mouth of the Calaveras and Antioch.

It is gratifying to be able to state that warnings were received at all points affected by the floods in ample time to guard against danger and damage, and that many thousands of dollars' worth of stock were saved and levees protected as a result of the warnings.

The following table gives the precipitation for the month of January, 1911, the highest river stages and dates during the floods, and the departures from the flood stages at the various stations of observation:

SACRAMENTO WATERSHED.

Station.	River.	Precipitation, January, 1911.	Highest stage.	Date.	Above or below flood stage.
		Inches.	*Feet.*		*Feet.*
St. John	Stony Creek		4.2	Jan. 30	− 7.8
Colgate	Yuba	28.49	10.2	Jan. 31	− 3.8
Marysville	....do	13.55	20.0	...do....	− 5.0
Oroville	Feather	14.32	13.3	...do....	−11.7
Folsom City	American	21.06	19.8	...do....	.....
Kennett	Sacramento	14.84	8.9	...do....	−14.1
Red Bluff	.....do	9.08	18.5	...do....	− 4.5
Monroeville	.....do	9.36	14.8	...do....	− 7.2
Colusa	.....do	7.68	24.3	Feb. 1	− 3.7
Knights Landing	.....do	12.22	17.2	Feb. 2, 3	− 0.8
Sacramento	.....do	12.72	26.9	Feb. 2	− 2.1
Rio Vista	.....do	12.48	10.1	Feb. 5	− 1.9

SAN JOAQUIN WATERSHED.

Merced Falls	Merced	11.05	*9.1	Jan. 31	.....
Jacksonville	Tuolumne	18.78	*27.0	...do....	+ 7.0
Melones	Stanislaus	21.66	14.0	...do....	.....
Jenny Lind	Calaveras	14.63	*14.0	...do....	+ 4.0
Bellota	Mormon Slough	13.91	†22.0	...do....	+ 2.0
Electra	Mokelumne	22.96	9.3	...do....	− 2.7
Pollasky	San Joaquin	7.61	12.0	...do....	+ 2.0
Firebaugh	.....do	3.48	12.5	Feb. 2	+ 0.5
Lathrop	.....do	7.95	*†22.5	Feb. 1	+ 5.5

* Highest of record. † Estimated.

So far as could be learned, the estimated losses from the floods were as follows:

Property, including railroads, but excluding crops	$425,000
Crops	25,000
Damage to farm lands	75,000
Suspension of business	25,000
Total	550,000

Value of property saved through Weather Bureau warnings, estimated, $230,000.

The general appreciation of the value of the service rendered by the Weather Bureau was indicated by the number of letters received from those especially interested.

The flood in the Ohio River was caused by the rains of January 27, 28, and 29, and the first warnings were issued at Pittsburg, Pa., on the evening of January 29, for a stage of 25 feet, or 3 feet above the flood stage. On the following day warnings were issued for a still higher stage at Pittsburg and for a stage of 39 feet at Wheeling, W. Va., but the freezing temperatures that set in during the afternoon checked the rise from the tributaries, and the crest stage at Pittsburg was but 25.2 feet, or 3.2 feet above the flood stage, at 7 a. m., January 31. At Wheeling the highest stage was 35.2 feet, 0.8 foot below the flood stage, at midnight, January 31.

The flood was very severe along the Monongahela River, and has been exceeded but once during the winter months. Some crest stages were as follows: Fairmont, W. Va., 29.2 feet, 4.2 feet above flood stage; Greensboro, Pa., 32 feet, 14 feet above flood stage; and Lock No. 4, Pa., 36.7 feet, 8.7 feet above flood stage.

The warnings proved to be very timely, and the estimated losses from the flood were consequently quite small. They were about as follows:

Property, excluding crops	$50,000
Crops	None.
Damage to farm lands	None.
Suspension of business	15,000
Total	65,000

Value of property saved through Weather Bureau warnings, estimated, $250,000.

Under date of January 31, 1911, the Pittsburg Dispatch commented as follows:

WARNINGS VALUABLE.

Never was the value of warnings from the Weather Bureau more apparent than those which were given to the public through the newspapers yesterday morning. Almost before the rise began everybody who had access to a newspaper and who had interests which might be affected was on the alert.

In the Parkersburg district the crest stages were 36.3 feet, 0.3 foot above flood stage, at Parkersburg, W. Va., and 45.4 feet, 6.4 feet above the flood stage at Point Pleasant, W. Va., on February 1, and at the latter place the river was above the flood stage from January 31 to February 3, inclusive. The usual warnings were issued, and no damage was done in the district.

From Huntington, W. Va., to Louisville, Ky., flood stages were not reached although they were closely approximated, except at Madison, Ind., and Louisville, Ky. Below Louisville flood stages were exceeded as far down as Shawneetown, Ill., but no damage was done. The usual warnings were issued at the proper time, and the highest stage reached was 38.8 feet at Evansville, Ind., 3.8 feet above the flood stage. The river remained above the flood stage from February 4 to 12, inclusive. At Paducah, Ky., and Cairo, Ill., the crest stages were about 7 feet below the flood stage.

The Wabash River was above the flood stage below the mouth of the White River from February 1 to 6, inclusive, with a crest stage on February 4 of 16.7 feet at Mount Carmel, Ill., 1.7 feet above the flood stage. Warnings were first issued on January 30, and no damage occurred.

Along the Ohio River, below the mouth of the Wabash, the estimated losses were about as follows:

Property, exclusive of crops	None.
Crops	$10,000
Damage to farm lands by erosion, etc	5,000
Losses through suspension of business	25,000
Total	40,000

Value of property saved by the Weather Bureau warnings, estimated, $25,000.

There was a moderate flood in the lower Tennessee River, due to heavy rains from February 6 to 9, inclusive, and warnings were first issued on February 11. The crest stages were but slightly above the flood stage, and little or no damage was done.

The crest of the Ohio River rise passed into the Mississippi River on February 14, and reached New Orleans, La., on March 3 with a stage of 11.8 feet.

Severe floods occurred in the smaller streams of northwestern Illinois and northeastern Iowa from February 14 to 18, inclusive. There were from 8 to 10 inches of moist snow on the frozen ground, and high temperatures from February 10 to 12, inclusive, followed by heavy rains on February 13, 14, 16, and 17, sent most of the snow into the rivers. The trouble was confined principally to the rivers that have their outlets between Dubuque and Davenport, Iowa. The Galena River of Illinois was higher on February 14 than at any time since 1892, while in the Maquoketa River of Iowa the rise was the most rapid ever known, with a crest stage at Maquoketa, Iowa, shortly after midnight on February 13–14, about 8 inches higher than the high-water mark of June, 1892. The waterworks plant was put out of commission and several small bridges were washed away.

The most serious damage occurred in the bottoms along the Wapsipinicon River. One human life and 73 head of cattle were lost and several bridges were carried away. These floods caused a marked rise in the Mississippi River, and flood stages were almost reached between Quincy, Ill., and Hannibal, Mo.

The mild and rainy weather that prevailed during the early part of the month carried away nearly all the snow from the lower peninsula of Michigan, and the combined run-off of melted snow and rain caused sudden rises in both the Saginaw and Grand River watersheds. For a few days conditions were quite threatening, as heavy sheets of rotting ice covered both rivers, and gorges were feared. A gorge 4 miles in length formed in the Grand River during the afternoon and night of February 20 just below the city of Portland, Mich., and the backwater reached the flood stage on the following morning. Some damage was done to basements, but the gorge was successfully dynamited during the afternoon, and the waters afterward receded rapidly. There were also fears that cold weather would form a gorge in the low stretches of the river just below Grand Rapids, and on the advice of the official in charge of the local office of the Weather Bureau a large boom was stretched across the river just above the city on February 21. This stopped

the running ice, and allowed the formation of a sheet of surface ice.

ICE.

At the end of the month the Mississippi River remained frozen as far south as Prairie du Chien, Wis. The ice moved out below the drawbridge at Dubuque, Iowa, during the afternoon of February 17, and above the bridge on February 26, the earliest opening of the Mississippi River at Dubuque in 29 years. The previous earliest date was March 3, 1892. At Davenport, Iowa, the ice moved out on February 15, and at Keokuk, Iowa, on February 1.

The Missouri River remained closed from Omaha northward, and the rivers of New England and New York also remained frozen.

MOUNTAIN SNOWFALL.

As a whole, conditions improved materially during the month, only a limited number of localities reporting a probable deficiency in water supply during the coming spring and summer. Estimates are of course based upon the assumption that the spring temperatures will not be unusually high.

Hydrographs for typical points on several principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Librarian.

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies. Anonymous publications are indicated by a ———.

Angenheister, G.
Wolkenbeobachtungen in Samoa. [Göttingen.] [1909.] 8 p. 8°. (Separatabdruck: Nachr. k. Gesell. Wiss., Göttingen, Math.-Physik. Kl., 1909.)

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Brillmann, Reinhard.
Untersuchungen über das diffuse Wandlicht. Emden. 1910. 39 p. 8°. (Diss.—Kiel.)

Capodimonte. Reale osservatorio.
Osservazioni meteoriche, 1907, 1908, 1909. n. p. n. d. 8°.
Riassunto delle osservazioni meteoriche . . . 1907, 1908. n. p. n. d. 8°.

Fassig, Oliver L[anard].
Average annual rainfall of Porto Rico [and other papers]. Washington, etc. 1909, 1910. v. p. 4°.

Fourier, [Jean Baptiste Joseph].
Mémoire sur les températures du globe terrestre et des espaces planétaires. [Paris.] [1824.] p. 569–604. 4°.

Germany. K. Marine-Amt. Observatorium in Wilhelmshaven.
Veröffentlichungen . . . Neue Folge, Heft 1, 2. Übersicht über . . . Erdmagnetismus, 1910. Berlin. 1911. 6 p. f°.

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Ueber einen neuen Seismographen für die Vertikalkomponente der Bodenbewegung. St. Petersburg. 1910. 34 p. 4°.

Greece. Observatoire national d'Athènes.
Annales . . . Tome 5. Athènes. 1910. 592 p. f°.

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Modern lightning conductors; . . . Report of the Lightning research committee of 1905, also the Phoenix fire office 1910 rules, with notes as to the methods of protection and specifications . . . 2d ed. London. 1910. v. p. 8°.

Lenard, P.
Ueber die Strahlen der Nordlichter. Heidelberg. 1910. 9 p. 8°.

Lenard, P., & Ramsauer, C.
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Lisbon. Observatorio do Infante D. Luiz.
Annaes . . . 1907, v. 45. Lisboa. 1910. 131 p. f°.

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Météorologie et phénomènes solaires. Bordeaux. 1910. 63 p. 8°. (Soc. d'océanographie du Golfe de Gascogne.)

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Wiesbaden. Meteorologische Station.
Beobachtungen, 1909. Wiesbaden. 1910. 54 p. 8°. (S.-Abdr.: Nassauer Verein für Naturkunde.)

RECENT PAPERS BEARING ON METEOROLOGY AND SEISMOLOGY.

C. FITZHUGH TALMAN, Librarian.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology and other cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau. Unsigned articles are indicated by a ———.

Journal of geology. Chicago. v. 19. January–February, 1911.
Coleman, A. P. Climate and the physical conditions of the Keewatin. p. 1–14.

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Fujiwara, S. On kites and kite lines. (2d report. English.) p. 1–7.

Nature. London. v. 85. February 2, 1911.
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Wedderburn, E. M., & Williams, A. M. The temperature seiche p. 257–258. [Abstract from Transactions.]

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Schuster, Arthur. The origin of magnetic storms. p. 44–50.

School science and mathematics. Chicago. v. 9. March, 1911.
Brown, Robert M. The humidity of the air in school rooms. p. 252–256.

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Gulick, Luther H. The air we breathe in buildings. p. 326–328.

Scientific American. New York. v. 104. March 4, 1911.
——— The southernmost meteorological station of the world p. 219.
——— Fog and fog signals. p. 227. [Abstract of paper by A. G. McAdie.]

Scientific American supplement. v. 71. March 25, 1911.
——— The world's daily weather maps. Systems used in various countries. p. 188.

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[Mill, Hugh Robert.] The new observatory at Colombo and its work. p. 1–5.

——— The föhn wind as it strikes one. By a resident in Innsbrück. p. 5–7.

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Ciel et terre. Bruxelles. 32 année. Février 1911.

L., E. L'observatoire Ximénien de Florence. p. 82–84.

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Muntz, A., & Laine, E. Les nitrates dans l'atmosphère des régions australes. p. 166–169. (23 jan.)

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Beicht, J. Das koreanische meteorologische Observatorium. Sturm- und Wettersignale an der koreanischen Küste. p. 84–85.

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Alt, Eugen, & Weickmann, Ludwig. Klimatologie von Süddeutschland. 1. Teil: Untersuchungen über Gewitter und Hagel in Süddeutschland. (Periode 1893–1907.) p. C 1–31.

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Polis, P[eter]. Wetterkunde und Luftschiffahrt im Westen. p. 10–11. (25. Jan. 1911.)

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Rona, S[igmund]. Das Klima von Ungarn. p. 53–66.

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Kassner, C. Taschenwinkelmesser (verbesserter Jakobstab) für meteorologische Winkelmessung. p. 67–69.

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Gockel, Albert. Luftelektrische Messungen auf der Adria und dem Mittelmeere. p. 65–66.

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Less, E[mil]. Über den Nutzen funkentelegraphischer Witterungsnachrichten vom Atlantischen Ozean. p. 25–37. (Febr.)

Jochimsen, C. Was lehrt uns die Statistik der letzten Jahrzehnte über Blitzschläge und Bliztgefahr? p. 37–41. (Febr.) [Abstract of memoir by Brodersen.]

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Brückner, Ed., & Muret, E. Les variations périodiques des glaciers. XV^{e} rapport, 1909.

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CONDENSED CLIMATOLOGICAL SUMMARY.

Temperature and precipitation by sections, February, 1911.

Section.	Temperature—in degrees Fahrenheit.								Precipitation—in inches and hundredths.					
	Section average.	Departure from the normal.	Monthly extremes.						Section average.	Departure from the normal.	Greatest monthly.		Least monthly.	
			Station.	Highest.	Date.	Station.	Lowest.	Date.			Station.	Amount.	Station.	Amount.
Alabama	54.6	+7.9	Evergreen	84	28	Riverton	15	22	3.28	−2.39	Hamilton	5.63	Evergreen	0.64
Arizona	46.3	−2.1	Casa Grande	82	1	Flagstaff (2)	−20	17	1.63	+0.32	Chlarsons Mills	4.92	Aztec	0.05
Arkansas	49.8	+8.6	2 stations	87	1	2 stations	7	22	4.31	+0.65	White Cliffs	7.20	Newport	2.38
California	43.7	−3.8	San Jacinto	89	22	Sierraville	−30	16	3.33	−0.26	Tamarack	13.60	Bagdad	0.00
Colorado	25.7	−0.1	Hoehne	88	6	3 stations	−25	10†	1.57	+0.50	Durango	7.02	2 stations	0.10
Florida	63.0	+3.9	Malabar	89	20	Molino	23	23	0.19	−3.30	Switzerland	1.13	11 stations	0.00
Georgia	53.8	+6.4	Valdosta	87	2†	Diamond	13	22	2.33	−2.96	Lafayette	5.60	St. George	0.08
Hawaii (January)	67.3	.....	Ookala, Hawaii	86	20	Humuula, Hawaii	32	4†	10.74	.....	Wahiawa Mt., Kauai	38.75	Kahului, Maui	2.63
Idaho	23.6	−4.1	Garnet	56	11	Blackfoot Dam	−31	17	1.09	−0.61	Spirit Lake	4.23	Mackay	0.15
Illinois	34.4	+7.3	Golconda	78	16	Lanark	−9	10	2.30	−0.04	Du Quoin	4.02	Martinton	1.06
Indiana	35.5	+7.4	Mount Vernon	78	16	Richmond	4	21	1.82	−1.11	Rome	3.00	Crawfordsville	0.87
Iowa	27.3	+8.1	Keokuk	71	1	2 stations	−13	10	2.76	+1.70	Lacona	5.46	Rock Rapids	0.50
Kansas	35.9	+6.0	Oswego	87	1	Coolidge	−11	22	4.04	+2.99	Chanute	8.26	Blakeman	0.44
Kentucky	42.0	+6.9	Hopkinsville	80	16	3 stations	11	22	3.25	−0.32	Alpha	5.17	Loretto	1.65
Louisiana	61.1	+8.9	2 stations	88	6†	Grand Cane	15	23	1.65	−3.25	Monroe	5.59	Amite	0.12
Maryland and Delaware	35.6	+4.1	Cheltenham, Md	74	27	Deer Park, Md	8	22	1.93	−1.59	Annapolis, Md	3.09	Great Falls, Md	0.98
Michigan	25.0	+7.0	Clinton	62	17	Iron River	−22	5	1.95	+0.11	St. James	4.11	Highland	0.62
Minnesota	16.6	+6.4	Faribault	52	24	Little Fork	−40	5	0.88	−0.09	International Falls	2.90	Fort Ripley	0.12
Mississippi	56.6	+9.1	3 stations	86	15†	3 stations	19	22	3.66	−1.91	Coffeeville	6.62	2 stations	0.56
Missouri	38.1	+7.6	Arthur	87	1	Fulton	0	21	3.62	+1.29	Unionville	7.45	Glasgow	2.01
Montana	17.0	−3.3	Flathead Creek	67	12	Grayling	−40	28	0.76	−0.02	Adel	3.25	3 stations	T.
Nebraska	28.3	+4.5	2 stations	73	12	Canton (near)	−15	21†	1.05	+0.33	Dubois	5.09	2 stations	T.
Nevada	27.8	−5.1	Logan	67	9†	Wells	−26	17	1.12	−0.12	Spooner's ranch	7.10	Willow Point	0.01
New England	21.2	−1.9	Danielson, Conn	58	4	Bloomfield, Vt	−32	6	2.54	−1.24	Jacksonville, Vt	5.06	Manchester, Vt	0.67
New Jersey	30.9	+0.9	2 stations	67	26	Layton	−12	16	2.78	−1.06	Bergen Point	4.06	Cape May	1.76
New Mexico	36.4	+0.2	Carlsbad	87	1	Elizabethtown	−27	22	1.78	+0.90	Aspen Grove Ranch	4.53	Maxwell (near)	0.42
New York	22.0	+1.6	Westfield	58	17	Tupper Lake	−29	6	2.60	+0.06	Newcomb	7.49	Hoosick Falls	0.89
North Carolina	46.5	+5.3	3 stations	80	2†	2 stations	8	22	2.09	−2.64	Andrews	5.65	Wilmington	0.45
North Dakota	7.3	+0.3	2 stations	55	12†	Willow City	−33	8	0.73	+0.36	Pembina	2.85	Forman	T.
Ohio	34.5	+7.8	Ironton	76	14	Garrettsville	−2	21	1.95	−0.67	Youngstown	3.76	Defiance	0.98
Oklahoma	44.2	+6.1	Hennessey	94	1	Hurley	−11	22	3.35	+1.93	Woodward	8.09	McComb	0.90
Oregon	33.5	−3.9	Deadwood	63	21	Granite	−17	28	2.70	−2.86	Glenora	11.30	Blalock	0.15
Pennsylvania	31.0	+4.4	2 stations	66	14	Milford	−8	16	2.27	−0.73	Warren	3.76	Everett	0.85
Porto Rico	71.9	−1.5	Rio Blanco	90	13†	Cayey	45	19	3.71	+1.55	Cidra	13.26	Hacienda Potala	0.61
South Carolina	52.1	+6.4	2 stations	85	15†	4 stations	20	22†	1.60	−3.16	Liberty	4.92	Winnsboro	0.58
South Dakota	20.3	+3.6	Oelrichs	70	24	Frederick	−19	17	0.72	+0.10	Englewood	3.30	Lemmon	T.
Tennessee	47.0	+7.6	Dover	84	17	3 stations	11	22	4.02	−0.47	Lynnville	6.09	Dyersburg	2.29
Texas	55.8	+5.9	2 stations	97	1†	Dalhart	−6	22	2.77	+0.88	Canadian	7.66	Liberty	0.04
Utah	23.7	−2.9	Springdale	69	1	Woodruff	−30	17	1.42	+0.06	Monticello	3.73	Price	0.39
Virginia	40.7	−5.0	2 stations	76	2†	Burkes Garden	7	22	2.27	−1.21	New Castle	4.36	2 stations	1.05
Washington	32.9	−2.4	Gold Basin	69	1	Winthrop	−12	16	2.20	−1.48	Longmire's springs	12.00	Nutland	0.27
West Virginia	38.7	+7.3	Logan	76	17	2 stations	6	11†	2.03	−1.18	Huntington	3.92	Franklin	0.40
Wisconsin	23.5	+8.0	Appleton	55	25	3 stations	−22	5	1.82	+0.65	Darlington	4.95	Meadow Valley	0.35
Wyoming	18.1	−2.0	Ft. Laramie	64	11	Crazy Creek	−40	28	0.80	+0.04	Belcher River, Y. N. P.	2.70	Powell	0.00

† Other dates also.

TABLE I.—*Climatological data for U. S. Weather Bureau stations, February, 1911.*

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.									Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.				Total.	Departure from normal.	Days with 0.01, or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.					
New England.							**23.2**	**− 2.5**										**73**	**2.79**	**− 0.5**									**6.2**		
Eastport	76	67	85	29.96	30.06	+ .08	16.9	− 4.5	45	27	24	− 5	6	10	35	16	11	77	2.47	− 1.2	9	9,560	w.	50	se.	4	5	12	11	6.5	17.1	T.
Greenville	1,076	6	....	28.83	30.06	.....	9.9	.....	37	27	21	−17	14	−1	37	.....	.....	.....	2.68	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	26.8	34.0
Portland, Me	103	81	117	29.95	30.08	+ .06	19.2	− 4.6	48	27	27	0	6	11	37	16	9	62	5.02	+ 1.4	12	6,784	n.	34	nw.	27	13	3	12	5.2	31.6	2.7
Concord	288	70	79	29.76	30.10	+ .06	20.0	− 3.6	52	26	30	− 9	16	10	51	.....	.....	.....	3.02	− 0.3	11	4,203	nw.	30	w.	27	9	6	13	6.1	21.3	3.1
Burlington	404	11	48	29.65	30.12	+ .09	14.7	− 3.2	45	26	24	−11	16	6	39	.....	.....	.....	1.39	0.0	10	7,228	nw.	54	s.	17	5	9	14	6.8	13.8	6.5
Northfield	876	16	60	29.12	30.12	+ .08	13.6	− 3.6	50	26	25	−18	16	2	48	12	9	86	1.61	− 0.6	14	4,932	n.	30	n.	19	5	9	14	6.9	28.5	10.9
Boston	125	115	188	29.94	30.09	+ .05	27.0	− 1.0	56	26	34	4	6	20	36	24	18	69	2.85	− 0.6	10	7,856	nw.	39	w.	27	9	5	14	6.0	19.5	....
Nantucket	12	14	90	30.05	30.06	+ .02	30.3	− 2.3	48	4	36	15	22	25	20	28	25	82	3.88	+ 0.8	12	11,583	w.	52	e.	7	11	4	13	6.3	19.7	T.
Block Island	26	11	46	30.05	30.08	+ .02	29.4	− 1.8	50	4	34	13	6	24	17	27	24	78	2.01	− 2.3	10	14,359	nw.	52	se.	4	11	5	12	6.0	11.6	....
Narragansett	.....	9	....	.....	.....	.....	27.4	− 0.9	50	27	34	6	16	20	34	.....	.....	.....	2.32	.....	9	.....	w.	.....	.....	.....	14	2	12	....	15.2	T.
Providence	160	141	165	29.91	30.10	+ .05	26.2	− 2.8	49	4	34	6	6	19	33	23	17	67	2.38	− 2.0	9	7,944	nw.	48	nw.	27	8	7	13	6.2	14.0	T.
Hartford	159	122	140	29.93	30.12	+ .06	26.1	− 1.1	54	26	34	1	16	18	36	23	17	68	2.64	− 0.9	10	5,625	nw.	30	nw.	2	7	9	12	6.2	14.6	T.
New Haven	106	116	155	29.98	30.11	+ .04	28.2	− 0.1	50	25	35	7	16	21	33	25	18	65	3.45	− 0.3	11	6,792	n.	35	n.	7	9	8	11	5.7	16.9	....
Middle Atlantic States.							**34.4**	**+ 1.7**										**74**	**2.02**	**− 1.2**									**6.3**		
Albany	97	102	115	30.01	30.12	+ .05	22.4	− 1.2	50	25	31	− 8	16	14	33	20	16	77	1.02	− 1.5	9	5,572	nw.	33	se.	2	9	8	11	5.8	11.0	T.
Binghamton	871	78	88	29.13	30.09	+ .01	24.6	− 0.1	50	26	33	2	22	16	36	.....	.....	.....	2.12	+ 0.2	15	4,701	w.	25	s.	2	2	7	19	8.0	15.5	T.
New York	314	108	350	29.76	30.12	+ .04	31.4	+ 0.7	56	26	38	15	3	25	23	28	23	70	3.17	− 0.6	11	9,416	nw.	42	nw.	2	6	11	11	6.5	12.5	....
Harrisburg	374	94	104	29.74	30.15	+ .06	32.0	+ 2.1	57	26	38	17	6	26	22	28	23	70	1.94	− 0.8	12	5,421	nw.	29	w.	10	7	6	15	6.7	9.4	....
Philadelphia	117	123	184	30.01	30.14	+ .04	34.8	+ 2.0	63	26	41	17	6	29	23	31	25	68	2.69	− 0.7	12	7,183	nw.	32	nw.	2	8	5	15	6.5	8.1	....
Scranton	805	111	119	29.23	30.12	+ .04	28.2	+ 1.3	56	26	35	9	6	21	26	26	22	78	1.90	− 0.8	12	5,873	sw.	31	w.	2	4	7	17	7.5	11.1	....
Atlantic City	52	37	48	30.08	30.14	+ .03	35.1	+ 2.1	57	25	42	18	21	29	23	31	27	74	2.24	− 1.0	11	5,897	nw.	26	ne.	15	6	8	14	6.4	3.9	....
Cape May	17	9	56	30.14	30.16	+ .05	36.0	+ 1.9	58	25	42	20	3	30	23	33	29	80	1.76	− 1.5	11	6,672	nw.	36	ne.	15	8	9	11	6.2	3.8	....
Baltimore	123	100	113	30.02	30.16	+ .05	36.6	+ 2.0	64	26	43	20	6	30	27	32	27	71	2.31	− 1.2	11	5,196	sw.	25	sw.	24	8	8	12	5.8	8.9	....
Washington	112	62	85	30.03	30.16	+ .05	37.0	+ 2.5	68	26	45	21	22	29	35	32	26	68	1.92	− 1.5	11	5,211	nw.	31	nw.	10	11	5	12	5.8	10.2	....
Cape Henry	18	9	58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lynchburg	681	83	88	29.40	30.17	+ .06	41.2	+ 3.0	71	2	50	20	22	32	35	36	31	73	1.23	− 2.3	9	3,300	nw.	24	nw.	22	7	11	10	6.0	0.4	....
Mount Weather	1,725	10	54	28.22	30.13	+ .02	32.0	+ 2.9	61	18	39	13	22	25	30	28	24	78	1.51	− 1.6	11	13,764	w.	68	nw.	20	8	9	11	6.0	7.4	....
Norfolk	91	102	111	30.05	30.15	+ .04	43.9	+ 2.1	71	2	52	25	22	36	29	39	34	74	2.18	− 1.6	8	6,377	ne.	30	sw.	2	10	8	10	5.3	.....	....
Richmond	144	189	197	29.99	30.15	+ .04	41.0	+ 1.1	70	26	50	21	22	32	32	.....	.....	.....	2.20	− 0.9	10	5,204	ne.	30	sw.	26	8	6	14	6.0	T.	....
Wytheville	2,293	40	47	27.72	30.17	+ .05	39.5	+ 4.4	66	2	48	14	22	31	31	35	33	84	2.04	− 2.0	8	4,792	w.	26	w.	13	9	6	13	5.7	0.7	....

TABLE I.—*Climatological data for U. S. Weather Bureau stations, February, 1911*—Continued.

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.										Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.						Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.					Total.	Departure from normal.	Days with 0.01, or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.						
South Atlantic States.							**51.5**	**+ 3.7**											**77**	**1.18**	**− 2.9**								**4.9**		
Asheville	2,255	53	75	27.76	30.17	+ .04	43.8	+ 5.3	69	18	54	14	22	34	33		38	34	76	2.19	− 2.5	8	6,952	nw.	32	se.	6	8	10	10	5.4	T.	....
Charlotte	773	68	76	29.31	30.16	+ .04	47.6	+ 3.5	75	18	57	21	22	38	28		41	36	74	1.93	− 2.5	10	4,568	sw.	26	sw.	14	11	7	10	5.7	0.1	....
Hatteras	11	12	47	30.13	30.14	+ .03	47.8	+ 1.2	64	20	54	30	22	42	21		44	42	86	0.88	− 3.6	5	9,876	ne.	37	nw.	20	11	9	8	5.4	.....	....
Manteo	12	12	46	.....	.....	.....	46.2	.....	72	18	56	24	22	36	.....		.....	.....	.....	0.94	− 3.3	5	.....	ne.	.....	.....	.....	11	6	11	.....	.....	....
Raleigh	376	103	110	29.74	30.16	+ .05	46.0	+ 2.7	74	18	55	22	22	37	32		39	33	69	2.52	− 1.8	9	5,462	ne.	26	sw.	26	10	6	12	5.6	.....	....
Wilmington	78	81	91	30.07	30.16	+ .04	51.4	+ 3.7	76	2	61	28	23	42	30		44	40	74	0.45	− 2.9	4	5,115	ne.	28	sw.	20	10	11	7	4.7	.....	....
Charleston	48	11	92	30.10	30.15	+ .03	55.2	+ 3.5	78	15	64	31	22	47	25		49	46	83	1.11	− 2.3	4	6,540	sw.	32	e.	15	15	7	6	3.6	.....	....
Columbia, S. C.	351	41	57	29.77	30.17	+ .06	51.9	+ 4.1	77	15	62	25	22	42	31		44	39	71	0.94	− 3.6	6	4,360	sw.	24	w.	20	11	9	8	4.9	.....	....
Augusta	180	89	97	29.96	30.16	+ .04	53.5	+ 4.5	78	27	64	27	22	44	37		47	43	78	1.24	− 3.1	6	3,835	nw.	28	nw.	20	10	8	10	5.3	.....	....
Savannah	65	150	194	30.09	30.16	+ .04	56.7	+ 4.2	79	15	67	31	22	46	32		50	45	76	0.70	− 2.6	3	7,993	sw.	32	e.	15	13	8	7	4.2	.....	....
Jacksonville	43	96	129	30.12	30.17	+ .05	61.0	+ 4.1	81	28	71	34	23	51	29		55	52	83	0.13	− 3.3	1	5,451	sw.	30	sw.	20	12	12	4	4.4	.....	....
Florida Peninsula.							**68.3**	**+ 2.3**											**81**	**0.05**	**− 2.6**								**3.6**		
Jupiter	28	10	46	30.11	30.14	+ .06	68.7	+ 2.4	84	12	76	40	24	61	27		62	59	78	0.09	− 3.0	2	6,534	e.	27	e.	17	11	14	3	4.2	.....	....
Key West	22	10	53	30.10	30.12	+ .05	71.5	+ 0.7	82	20	77	56	23	66	19		66	63	80	0.01	− 1.6	1	6,512	ne.	26	nw.	24	17	9	2	3.2	.....	....
Tampa	35	79	96	30.13	30.17	+ .07	64.6	+ 3.7	82	15	74	37	23	55	31		58	56	85	0.05	− 3.2	2	4,412	nw.	24	w.	24	15	12	1	3.3	.....	....
East Gulf States.							**56.9**	**+ 6.0**											**76**	**2.53**	**− 2.2**								**6.2**		
Atlanta	1,174	190	216	28.92	30.17	+ .05	50.6	+ 5.4	72	18	59	20	22	42	31		45	41	76	3.40	− 1.2	10	8,308	w.	39	w.	24	8	3	17	6.5	T.	....
Macon	370	78	87	29.76	30.16	+ .04	54.0	+ 5.1	79	27	64	26	22	44	35		.....	.....	.....	2.38	− 2.2	8	4,245	nw.	23	nw.	24	10	5	13	5.6	.....	....
Thomasville	273	8	57	29.87	30.18	+ .06	58.9	+ 3.9	82	28	71	28	23	47	40		51	48	79	0.51	− 4.0	5	3,717	s.	20	nw.	24	15	9	4	3.8	.....	....
Pensacola	56	140	183	30.11	30.17	+ .05	60.6	+ 5.1	77	2	67	30	23	54	27		.....	.....	.....	0.38	− 4.1	4	8,720	s.	60	s.	19	8	14	6	5.4	.....	....
Anniston	741	9	57	29.39	30.20	+ .08	52.6	+ 6.8	76	15	61	22	22	44	39		.....	.....	.....	4.39	− 0.3	12	4,376	n.	32	nw.	3	4	7	17	7.2	.....	....
Birmingham	700	11	48	29.41	30.18	+ .06	53.1	+ 4.8	76	18	61	21	22	45	31		48	44	77	3.71	− 1.0	9	5,163	s.	29	nw.	3	6	7	15	6.8	T.	....
Mobile	57	98	106	30.10	30.16	+ .05	60.7	+ 7.5	78	2	68	31	22	54	25		55	51	78	2.09	− 3.3	7	5,823	se.	31	s.	19	12	10	6	4.9	.....	....
Montgomery	223	100	112	29.92	30.17	+ .05	56.6	+ 5.3	78	7	65	26	22	48	29		50	46	73	3.07	− 2.4	7	4,793	s.	25	nw.	19	10	6	12	5.8	.....	....
Meridian	375	84	93	29.74	30.15	+ .04	56.8	+ 7.7	79	15	66	25	22	48	33		51	47	76	1.88	− 3.0	8	2,376	sw.	24	nw.	19	6	6	16	6.8	.....	....
Vicksburg	247	62	74	29.88	30.17	+ .07	58.4	+ 7.5	81	15	66	28	22	51	28		52	47	70	4.64	0.0	9	5,464	se.	23	sw.	3	8	8	12	6.1	.....	....
New Orleans	51	90	121	30.09	30.15	+ .06	63.6	+ 7.3	81	7	71	35	22	56	26		57	54	79	1.35	− 3.1	5	6,699	se.	28	se.	18	8	8	12	5.9	.....	....
West Gulf States.							**55.6**	**+ 6.4**											**73**	**2.54**	**− 0.4**								**6.1**		
Shreveport	249	77	84	29.86	30.13	+ .04	57.3	+ 7.3	82	6	66	26	22	49	33		51	46	73	1.79	− 1.8	8	4,698	s.	26	nw.	19	8	3	17	6.6	.....	....
Bentonville	1,303	11	44	28.74	30.13	+ .03	43.6	+ 5.1	84	1	54	12	22	33	33		.....	.....	.....	3.06	+ 0.5	10	5,178	s.	28	s.	25	11	11	6	4.6	1.0	....
Fort Smith	457	79	94	29.63	30.12	+ .02	49.3	+ 7.7	87	1	58	17	22	40	36		42	35	63	4.57	+ 1.8	10	6,283	e.	38	sw.	13	8	9	11	5.7	3.0	....
Little Rock	357	139	147	29.77	30.15	+ .04	50.6	+ 6.5	80	1	59	20	22	42	27		44	38	67	4.26	+ 0.1	12	6,403	e.	37	sw.	1	8	6	14	6.2	T.	....
Brownsville	57	4	.....	.....	.....	.....	67.9	.....	83	15	75	38	24	61	29		.....	.....	.....	2.05	.....	3	.....	s.	36	s.	5	.....	.....	.....	.....	.....	....
Corpus Christi	20	69	77	30.06	30.08	+ .03	64.0	+ 6.3	80	3	69	37	20	59	30		59	56	82	0.72	− 1.3	4	11,202	se.	49	s.	13	1	17	10	6.8	.....	....
Fort Worth	670	106	114	29.37	30.09	+ .02	53.8	+ 5.7	91	1	63	20	22	44	35		47	42	70	3.84	+ 2.6	11	7,646	nw.	35	nw.	19	6	8	14	6.4	T.	....
Galveston	54	106	112	30.07	30.13	+ .06	62.2	+ 6.6	75	8	67	36	22	58	31		58	56	84	0.69	− 2.4	8	8,901	se.	44	nw.	19	8	16	4	4.8	.....	....
Houston	138	111	121	29.96	30.11	.....	62.8	.....	83	14	71	30	23	54	32		.....	.....	.....	0.80	.....	5	7,280	se.	35	se.	17	4	13	11	6.4	.....	....
Palestine	510	73	79	29.57	30.11	+ .03	57.6	+ 6.7	82	3	66	24	22	49	26		52	47	74	3.16	− 0.2	10	6,501	s.	37	w.	13	5	9	14	6.6	.....	....
San Antonio	701	80	91	29.34	30.08	+ .03	60.1	+ 5.7	85	1	69	29	23	51	35		54	49	73	1.66	− 0.1	9	5,310	se.	28	n.	19	4	10	14	6.8	.....	....
Taylor	583	55	63	29.48	30.10	+ .04	57.2	+ 5.9	83	1	66	25	23	49	31		.....	.....	.....	1.65	− 0.9	11	7,418	n.	32	s.	13	9	6	13	6.2	.....	....
Ohio Valley and Tenn.							**41.5**	**+ 5.3**											**76**	**2.68**	**− 0.9**								**6.5**		
Chattanooga	762	189	213	29.36	30.19	+ .06	49.2	+ 5.5	75	18	58	20	22	41	31		44	39	73	4.41	− 0.5	17	5,594	s.	33	s.	3	5	8	15	6.7	5.1	....
Knoxville	996	93	100	29.09	30.17	+ .05	47.2	+ 6.4	70	2	56	19	22	39	34		43	40	81	4.83	− 0.1	14	3,345	sw.	21	sw.	14	6	10	12	6.3	T.	T.
Memphis	399	76	97	29.76	30.19	+ .08	49.4	+ 6.1	79	16	57	20	22	42	27		43	38	68	3.48	− 0.9	11	6,509	ne.	50	nw.	3	9	3	16	6.1	T.	....
Nashville	546	168	191	29.59	30.18	+ .06	46.6	+ 5.5	74	15	56	17	22	37	31		42	38	78	4.68	+ 0.4	11	7,430	nw.	44	w.	3	8	10	10	5.9	T.	....
Lexington	989	75	102	29.07	30.17	+ .06	40.4	+ 4.8	70	14	49	16	22	32	31		.....	.....	.....	2.21	− 1.0	10	7,925	w.	39	sw.	14	7	9	12	6.1	0.1	T.
Louisville	525	111	132	29.58	30.18	+ .07	42.2	+ 5.6	72	17	51	20	22	34	33		37	33	73	2.80	− 1.0	9	6,513	w.	31	sw.	14	9	7	12	5.8	4.1	....
Evansville	431	72	82	29.69	30.18	+ .07	41.3	+ 5.5	74	16	49	19	21	33	33		37	33	77	1.84	− 1.2	9	5,886	s.	30	s.	14	8	10	10	5.4	1.0	T.
Indianapolis	822	154	164	29.25	30.16	+ .06	36.3	+ 5.6	69	17	44	13	10	29	30		32	29	78	1.28	− 1.8	10	7,352	nw.	42	sw.	26	8	5	15	6.5	3.0	....
Cincinnati	628	152	160	29.48	30.18	+ .08	39.9	+ 5.5	70	17	48	17	22	32	30		35	31	73	1.80	− 1.4	11	5,520	nw.	30	w.	6	5	8	15	6.8	3.1	T.
Columbus	824	173	222	29.24	30.15	+ .06	35.4	+ 4.4	67	17	42	16	21	28	27		31	28	77	1.71	− 1.4	10	8,602	nw.	43	w.	2	5	11	12	6.7	9.4	....
Pittsburg	842	353	410	29.19	30.13	+ .04	35.3	+ 3.5	64	17	43	14	21	28	33		32	29	79	1.98	− 0.7	13	9,003	nw.	42	se.	6	4	7	17	7.5	8.6	....
Parkersburg	638	77	84	29.49	30.16	+ .06	39.2	+ 5.3	72	14	47	18	21	31	28		35	32	81	1.65	− 1.6	11	4,618	nw.	26	nw.	2	6	7	15	6.7	6.4	....
Elkins	1,940	41	50	28.03	30.15	+ .05	36.8	+ 5.3	66	14	46	13	11	28	36		33	29	78	2.18	− 1.0	14	3,275	w.	24	w.	2	3	9	16	7.6	12.2	1.0
Lower Lake Region.							**26.8**	**+ 2.4**											**79**	**2.63**	**+ 0.2**								**7.3**		
Buffalo	767	178	206	29.23	30.09	+ .03	26.5	+ 2.5	45	26	33	7	6	20	28	25	22	84		3.95	+ 1.1	17	12,442	w.	64	sw.	23	1	12	15	7.6	25.8	0.3
Canton	448	10	71	29.61	30.12	.....	13.1	− 4.9	49	26	23	−24	6	3	47	.....	.....	.....	.....	2.97	+ 0.4	15	8,280	ne.	42	sw.	23	10	4	14	6.1	22.4	5.1
Oswego	335	76	91	29.72	30.10	+ .04	24.4	+ 0.5	47	17	32	0	6	17	32	22	20	84		2.89	+ 0.3	17	9,137	nw.	38	sw.	2	1	9	18	8.2	21.8	4.0
Rochester	523	86	102	29.51	30.10	+ .04	26.7	+ 2.8	48	17	32	6	6	21	28	24	19	76		3.22	+ 0.4	20	7,590	w.	38	sw.	23	1	9	18	8.1	30.0	1.0
Syracuse	597	97	113	29.42	30.09	+ .02	24.4	+ 0.6	50	26	32	1	6	17	33	.....	.....	.....	.....	2.66	+ 0.9	21	9,336	nw.	55	s.	2	3	8	17	7.6	22.9	1.7
Erie	714	92	102	29.31	30.10	+ .03	29.6	+ 3.5	59	17	36	11	5	23	32	27	23	78		2.11	− 0.7	12	8,036	w.	49	se.	2	3	8	17	7.3	6.0	....
Cleveland	762	190	201	29.28	30.12	+ .05	31.8	+ 5.0	62	17	38	15	11	25	33	28	24	75		1.81	− 0.8	14	10,410	sw.	48	w.	2	5	5	18	7.4	10.0	....
Sandusky	629	62	70	29.41	30.11	+ .04	31.4	+ 4.3	62	17	38	15	11	25	32	.....	.....	.....	.....	1.93	− 0.5	11	6,686	w.	32	w.	2	5	6	17	7.2	7.9	....
Toledo	628	208	246	29.43	30.14	+ .07	31.4	+ 4.6	62	17	38	13	9	24	27	28	24	76		2.22	+ 0.3	8	10,914	sw.	46	e.	6	6	10	12	6.3	7.2	....
Detroit	730	218	258	29.30	30.12	+ .06	28.8	+ 3.8	59	17	35	12	21	23	25	26	23	80		2.54	+ 0.4	6	10,627	w.	50	e.	6	5	8	15	7.1	13.3	....
Upper Lake Region.							**24.6**	**+ 5.6**											**80**	**2.07**	**+ 0.4**								**6.9**		
Alpena	609	13	92	29.41	30.10	+ .07	24.2	+ 6.4	52	25	31	− 3	21	18	29	22	19	82		1.97	+ 0.2	15	9,239	nw.	48	e.	14	1	14	13	7.4	8.9	0.6
Escanaba	612	40	82	29.42	30.12	+ .06	21.8	+ 6.5	47	23	29	0	28	14	30	20	17	81		2.00	+ 0.7	12	6,837	nw.	39	e.	14	3	9	16	7.1	14.2	6.5
Grand Haven	632	54	92	29.40	30.11	+ .06	28.8	+ 4.6	51	16	34	5	7	23	27	27	23	78		2.31	+ 0.4	13	9,357	nw.	40	w.	2	6	7	15	7.1	7.6	....
Grand Rapids	675	70	87	29.32	30.12	+ .07	29.2	+ 3.7	55	17	35	10	21	23	31	27	24	83		2.38	+ 0.5	11	6,075	nw.	28	w.	2	5	7	16	7.1	7.0	....
Lansing	863	11	62	29.13	30.10	.....	27.6	.....	54	17	34	7	11	21	35	25	22	82		1.77	.....	13	5,912	w.	27	nw.	2	6	8	14	6.8	7.7	....
Houghton	668	66	74	29.35	30.11	+ .06	22.2	+ 6.2	50	25	29	− 1	7	16	29	.....	.....	.....	.....	2.48	+ 0.8	13	5,784	nw.	35	n.	26	3	10	15	7.2	21.0	26.5
Marquette	734	77	116	29.28	30.12	+ .07	22.9	+ 7.0	52	24	29	5	5	17	26	21	18	82		2.40	+ 0.7	15	8,533	w.	42	w.	23	5	10	13	6.7	23.9	27.6
Port Huron	638	78	120	29.38	30.10	+ .05	27.2	+ 5.2	53	25	34	9	21	21	30	24	21	81		1.76	− 0.4	9	8,735	nw.	36	se.	6	6	5	17	7.0	8.7	....
Sault Ste. Marie	614	11	61	29.39	30.12	+ .09	17.1	+ 3.7	46	25	25	−18	5	9	35	16	13	81		1.48	+ 0.1	15	7,396	e.	38	w.	23	5	3	20	7.9	14.2	13.0
Chicago	823	140	310	29.22	30.14	+ .06	32.4	+ 7.0	58	17	38	8	10	26	23	30	26	77		2.27	+ 0.1	9	10,518	sw.	48	e.	5	8	5	15	6.3	9.8	....
Milwaukee	681	122	139	29.37	30.13	+ .07	28.7	+ 6.8	48	25	34	4	10	23	29	26	22	77		1.98	+ 0.1	9	8,139	nw.	47	e.	5	9	6	13	5.9	8.5	....
Green Bay	617	49	86	29.41	30.10	+ .04	24.6	+ 7.4	46	25	31	2	5	18	30	22	17	74		1.96	+ 0.4	12	8,954	sw.	43	s.	25	4	8	16	7.4	4.6	....
Duluth	1,133	11	47	28.86	30.14	+ .06	16.6	+ 3.0	43	23	26	−13	4	8	35	14	11	80		1.89	+ 0.9	6	10,577	ne.	56	w.	22	7	12	9	5.2	17.5	10.4
North Dakota.							**7.3**	**+ 0.7**											**90**	**0.82**	**+ 0.2**								**3.9**		
Moorhead	940	8	57	29.16	30.24	+ .13	9.2	+ 2.2	39	24	21	−18	5	−2	38	8	7	94		0.63	− 0.1	6	5,651	nw.	30	nw.	1	15	6	7	6.3	6.3	10.0
Bismarck	1,674	4	57	28.38	30.29	+ .17	8.4	+ 0.1	39	24	20	−16	19	−3	38	7	5	90		0.42	− 0.1	4	5,930	nw.	36	w.	8	12	11	5	4.0	11.2	10.0
Devils Lake	1,482	11	44	28.55	30.24	+ .13	4.3	− 0.2	33	24	15	−23	2	−6	30	2	0	87		1.42	+ 0.9	5	7,620	w.	42	n.	1	14	9	5	3.9	15.3	14.0
Williston	1,872	14	56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Upper Miss. Valley.							**31.1**	**+ 6.5**											**77**	**2.45**	**+ 0.7**								**5.8**		
Minneapolis	918	102	208	.....	.....	.....	22.0	.....	45	25	30	− 3	10	14	28	.....	.....	.....	.....	0.89	+ 0.2	9	8,637	nw.	40	nw.	26	15	3	10	4.8	5.9	....
St. Paul	940	203	212	29.20	30.14	+ .05	22.2	+ 7.2	44	25	30	− 5	10	14	29	20	16	76		0.87	0.0	6	8,832	nw.	44	nw.	1	16	4	8	4.5	5.7	....
La Crosse	714	11	48	29.34	30.15	+ .07	25.8	+ 7.4	51	24	33	− 2	10	19	30	.....	.....	.....	.....	1.69	+ 0.6	5	4,376	nw.	22	s.	25	4	7	17	6.9	6.2	....
Madison	974	70	78	29.03	30.13	+ .06	25.5	+ 5.9	50	24	32	0	10	19	30	23	19	77		3.40	+ 1.9	8	7,869	nw.	32	ne.	19	7	7	14	6.4	9.2	....
Charles City	1,015	10	49	29.04	30.17	+ .07	23.6	+ 8.5	52	24	32	−10	10	15	43	22	19	83		2.06	+ 1.1	6	5,797	nw.	30	nw.	1	7	7	14	6.3	11.0	....
Davenport	606	71	79	29.47	30.16	+ .06	31.0	+ 7.2	58	16	39	3	10	23	29	27	23	78		4.10	+ 2.5	9	6,001	w.	28	nw.	2	12	3	13	5.6	8.7	....
Des Moines	861	84	101	29.22	30.16	+ .05	29.1	+ 5.0	55	1	37	4	10	22	36	26	21	74		2.91	+ 1.8	6	6,093	n.	40	sw.	25	9	4	15	6.4	7.6	....
Dubuque	698	100	115	29.39	30.18	+ .09	28.0	+ 6.4	50	24	35	0	10	21	34	26	22	80		4.09	+ 2.7	8	4,844	nw.	20	nw.	26	7	7	14	6.3	7.7	....
Keokuk	614	64	78	29.48	30.18	+ .07	34.6	+ 8.0	71	1	43	11	10	26	35	29	26	78		2.35	+ 0.7	8	5,778	nw.	31	w.	1	12	4	12	5.2	4.6	....
Cairo	356	87	93	29.78	30.18	+ .06	43.1	+ 5.5	76	16	51	17	22	35	32	38	33	72		2.66	− 0.7	12	7,348	n.	38	e.	19	9	3	16	6.1	1.0	0.5

TABLE I.—*Climatological data for U. S. Weather Bureau stations, February, 1911*—Continued.

Districts and stations.	Elevation of instruments.			Pressure in inches.			Temperature of the air, in degrees Fahrenheit.											Mean wet thermometer.	Mean temperature of the dew point.	Mean relative humidity, per cent.	Precipitation, inches.			Wind.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.	Snow on ground at end of month.
	Barometer above sea level, feet.	Thermometer above ground.	Anemometer above ground.	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.						Total.	Departure from normal.	Days with 0.01, or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.						
Upper Miss. Valley—Continued.																																	
La Salle	536	56	64	29.57	30.17	+ .09	30.8	+ 5.8	59	17	38	4	10	24	25						2.16	− 0.3	9	6,411	w.	34	w.	2	8	5	15	6.3	7.4	....
Peoria	609	11	45	29.48	30.17	+ .07	32.2	+ 6.3	63	1	40	5	10	24	31	29	26	79			2.39	− 0.3	11	6,168	n.	34	e.	5	9	5	14	6.0	7.2	....
Springfield, Ill	644	10	91	29.45	30.16	+ .06	35.5	+ 6.4	67	17	43	14	21	28	30	32	27	74			1.73	− 1.0	11	7,080	nw.	32	se.	5	10	4	14	5.9	6.0	0.1
Hannibal	534	75	109	29.58	30.18	+ .07	35.4	+ 6.3	76	1	44	14	21	27	42						2.38	+ 0.8	10	6,785	nw.	34	nw.	1	11	3	14	5.5	6.7	T.
St. Louis	567	208	317	29.54	30.16	+ .05	38.4	+ 4.9	84	1	46	16	22	30	40	34	30	74			3.02	+ 0.3	6	8,403	nw.	36	nw.	1	10	7	11	5.3	13.0	1.2
Missouri Valley.							**29.6**	**+ 5.2**												**76**	**2.71**	**+ 1.7**									**4.9**		
Columbia, Mo	784	11	84	29.30	30.16	+ .05	36.4	+ 6.3	81	1	46	6	23	27	48						3.04	+ 0.9	9	6,508	s.	37	sw.	14	10	10	8	5.0	14.1	1.5
Kansas City	963	161	181	29.10	30.16	+ .05	36.0	+ 6.1	72	15	**44**	10	21	28	40	32	28	76			6.76	+ 5.2	12	9,311	n.	42	nw.	1	12	5	11	5.2	12.3	2.0
St. Joseph	967	11	49	29.09	30.16	.....	34.2	.....	69	15	42	9	26	26	37	30	25	74			6.19	.....	10	6,618	nw.	35	nw.	1	10	6	12	5.5	6.9	0.7
Springfield, Mo	1,324	98	104	28.70	30.14	+ .03	40.1	+ 6.5	84	1	50	10	22	31	38	35	31	75			3.21	+ 0.9	8	8,455	s.	40	se.	5	10	9	9	4.9	2.7	1.4
Iola	984	11	50	29.08	30.16	+ .06	38.6	+ 6.6	80	1	49	11	21	29	43						4.77	+ 3.7	9	6,579	ne.	34	sw.	25	13	6	9	4.9	13.0	12.0
Topeka	983	85	101	.....	.....	.....	35.6	+ 5.6	71	15	44	7	21	27	38						5.59	+ 4.2	8	7,108	nw.	37	w.	13	14	5	9	4.5	7.8	1.4
Lincoln	1,189	11	84	28.86	30.18	+ .08	31.0	+ 6.2	65	12	40	4	21	22	38	26	22	74			2.01	+ 1.3	5	8,077	n.	42	nw.	1	9	7	12	5.8	1.0	....
Omaha	1,105	115	121	28.96	30.19	+ .08	29.4	+ 5.7	54	**24**	37	5	21	22	33	26	21	74			2.13	+ 1.4	5	7,023	n.	38	nw.	1	10	8	10	5.6	2.3	....
Valentine	2,598	47	54	27.36	30.21	+ .12	26.0	+ 4.8	66	12	39	− 5	21	13	46	21	15	73			0.71	+ 0.1	3	5,791	nw.	33	nw.	1	12	14	2	3.9	7.1	....
Sioux City	1,135	94	164	28.93	30.20	+ .08	24.0	+ 4.2	49	24	32	− 2	21	16	44	22	18	80			1.58	+ 1.0	3	9,322	nw.	51	nw.	1	11	7	10	5.2	13.2	....
Pierre	1,572	70	75	28.49	30.24	+ .13	21.2	+ 4.3	58	12	33	− 3	21	10	51	17	12	70			0.55	+ 0.1	3	5,895	nw.	42	nw.	1	12	14	2	3.7	6.4	T.
Huron	1,306	56	67	28.78	30.26	+ .14	15.2	+ 2.3	38	1	26	−11	21	5	40	14	11	85			0.74	+ 0.3	3	6,798	nw.	37	nw.	1	12	9	7	4.2	7.4	1.3
Yankton	1,233	49	57	28.83	30.22	+ .10	22.2	+ 4.0	48	24	31	− 7	21	13	43						1.43	+ 0.8	2	6,153	nw.	39	nw.	1	6	17	5	5.5	10.6	T.
Northern Slope.							**19.3**	**− 2.2**												**74**	**0.69**	**− 0.1**									**4.4**		
Havre	2,505	11	44	27.44	30.24	+ .17	5.4	− 9.6	37	13	18	−27	28	−7	47	6	4	89			0.60	+ 0.1	5	4,334	ne.	30	w.	3	18	7	3	3.6	8.5	8.2
Miles City	2,371	26	48	27.59	30.29	+ .20	12.0	− 4.8	38	12	24	−11	3	0	40	9	7	83			0.14	− 0.4	2	3,117	ne.	20	w.	8	14	12	2	3.5	1.7	2.1
Helena	4,110	8	56	25.80	30.18	+ .07	18.2	− 4.0	45	11	26	− 6	28	10	29	16	12	75			0.22	− 0.5	6	3,435	w.	25	sw.	12	14	7	7	4.2	4.7	1.6
Kalispell	2,962	11	34	26.96	30.12	+ .04	25.0	+ 1.2	40	5	34	− 4	27	16	31	22	17	73			0.48	− 1.0	6	2,999	w.	20	sw.	13	9	9	10	5.2	5.3	1.7
Rapid City	3,234	46	50	26.66	30.23	+ .15	25.8	+ 2.3	60	11	38	0	21	14	51	20	11	62			0.43	0.0	6	4,718	w.	38	w.	11	9	8	11	5.2	4.5	2.0
Cheyenne	6,088	56	64	23.96	30.16	+ .13	24.8	− 1.5	56	11	36	−13	21	14	37	19	13	67			0.56	0.0	10	6,974	w.	44	nw.	3	12	9	7	4.2	5.6	3.0
Lander	5,372	26	36	24.62	30.19	+ .11	18.5	− 3.3	50	11	32	−16	23	5	40	15	7	63			2.32	+ 1.7	8	2,327	sw.	29	sw.	2	14	7	7	4.2	27.5	16.8
Sheridan	3,790	9	47	26.13	30.21	.....	20.4	.....	52	11	33	−20	28	8	47	17	13	81			0.40	.....	6	3,310	nw.	35	sw.	12	11	9	8	4.7	5.5	1.7
Yellowstone Park	6,200	11	48	23.81	30.20	+ .10	14.6	− 5.0	36	11	25	−13	27	4	39	12	8	79			1.09	− 0.8	7	5,192	s.	37	sw.	2	11	5	12	4.8	11.4	18.7
North Platte	2,821	11	51	27.17	30.21	+ .14	29.8	+ 5.2	70	12	43	− 2	21	16	50	23	17	71			0.39	0.0	2	5,157	n.	31	n.	1	10	11	7	4.8	4.1	....
Middle Slope.							**34.7**	**+ 2.4**												**67**	**2.35**	**+ 1.6**									**4.8**		
Denver	5,291	129	136	24.70	30.12	+ .11	30.0	− 1.1	63	11	41	− 2	22	19	39	23	14	62			0.68	+ 0.2	7	5,361	s.	37	nw.	5	16	7	5	3.8	10.2	2.8
Pueblo	4,685	80	86	25.28	30.10	+ .10	29.0	− 2.8	67	11	42	−10	22	16	48	24	13	56			0.99	+ 0.5	9	4,767	nw.	47	nw.	5	13	10	5	3.9	17.3	4.3
Concordia	1,398	42	50	28.66	30.18	+ .09	34.3	+ 5.5	71	12	45	6	21	24	40	29	25	76			3.19	+ 2.4	6	5,410	n.	29	sw.	10	6	12	10	6.0	1.1	0.9
Dodge City	2,509	11	51	27.49	30.18	+ .12	33.1	+ 2.0	75	12	44	− 3	22	22	37	27	22	71			2.94	+ 2.2	8	8,068	nw.	38	sw.	10	13	8	7	4.5	12.2	4.7
Wichita	1,358	98	121	28.70	30.18	+ .10	37.6	+ 4.6	75	1	47	10	21	28	38	32	27	70			4.23	+ 3.2	10	7,547	ne.	38	ne.	18	10	9	9	5.3	6.4	6.3
Oklahoma	1,214	10	47	28.82	30.13	+ .06	44.0	+ 6.5	90	1	54	14	22	34	38	37	30	67			2.05	+ 1.1	10	11,344	n.	42	sw.	5	10	8	10	5.5	0.2	....
Southern Slope.							**47.4**	**+ 2.8**												**63**	**2.53**	**+ 1.4**									**6.2**		
Abilene	1,735	10	52	28.27	30.11	+ .06	49.6	+ 4.8	89	1	59	19	22	40	31	41	32	60			3.02	+ 1.9	5	7,616	n.	46	s.	25	4	5	19	7.4	T.	....
Amarillo	3,676	10	49	26.31	30.11	+ .09	38.6	+ 1.4	77	1	49	7	22	28	37	32	25	67			2.88	+ 2.0	7	8,370	se.	46	sw.	13	18	6	4	4.3	7.3	2.0
Del Rio	944	8	57	29.05	30.04	+ .04	58.6	+ 5.0	89	3	70	28	23	48	43						2.29	+ 0.5	10	5,913	se.	40	sw.	17	9	8	11	5.7	.....	....
Roswell	3,578	9	57	26.41	30.10	+ .12	42.7	+ 0.2	79	4	54	16	22	31	46	36	27	62			1.92	+ 1.3	7	4,690	n.	37	w.	13	4	8	16	7.2	8.8	....
Southern Plateau.							**41.8**	**− 3.1**												**63**	**1.31**	**+ 0.2**									**4.5**		
El Paso	3,762	110	133	26.19	30.00	+ .05	47.7	− 1.2	76	4	57	27	22	38	35	38	26	48			0.96	+ 0.5	3	9,267	e.	47	w.	25	7	9	12	6.0	.....	....
Santa Fe	7,013	8	56	23.19	30.05	+ .07	30.6	− 1.4	54	12	40	− 2	21	21	28	26	19	64			1.99	+ 1.2	10	5,398	ne.	30	n.	5	11	10	7	4.9	18.7	4.2
Flagstaff	6,907	8	57	23.24	29.94	− .06	27.9	− 2.9	48	10	39	− 7	17	17	43	24	21	78			2.75	− 0.5	13	5,435	sw.	33	sw.	25	11	5	12	5.0	18.4	2.1
Phoenix	1,108	50	56	28.80	29.98	− .01	53.0	− 1.4	75	11	64	31	17	42	34	47	40	65			0.66	0.0	5	2,776	e.	29	se.	27	15	9	4	3.9	.....	....
Yuma	141	9	58	29.85	30.00	.00	54.6	− 4.6	74	10	67	35	19	43	36	45	32	48			0.64	0.0	1	4,342	nw.	27	n.	17	20	4	4	2.3	.....	....
Independence	3,910	11	42	25.92	29.96	− .10	36.7	− 7.0	60	18	48	13	26	25	34	33	28	74			0.86	+ 0.1	4	5,040	n.	38	n.	25	9	12	7	5.0	3.5	....
Middle Plateau.							**30.4**	**− 2.0**												**71**	**1.93**	**+ 0.8**									**5.4**		
Reno	4,532	56	63	25.42	30.07	− .01	30.4	− 5.2	54	9	41	5	16	20	37	26	20	68			0.57	− 1.2	6	4,598	w.	40	sw.	13	9	12	7	4.6	6.7	T.
Tonopah	6,090	12	20	23.96	30.05	.....	25.7	.....	42	8	32	5	16	19	25	23	19	76			0.94	+ 0.2	7	6,907	se.	37	se.	11	11	11	6	4.5	14.1	6.5
Winnemucca	4,344	18	56	25.59	30.08	− .01	29.3	− 4.0	52	10	40	4	16	19	30	26	21	73			0.21	− 0.7	5	4,614	ne.	34	sw.	2	9	4	15	6.0	3.8	0.1
Modena	5,479	10	43	24.54	30.02	− .02	25.8	− 5.8	48	10	36	− 6	15	16	32	23	19	76			1.51	+ 0.3	10	6,124	w.	48	sw.	11	7	13	8	5.5	13.2	7.0
Salt Lake City	4,360	147	189	25.60	30.06	− .02	30.4	− 2.5	56	11	38	11	17	23	26	26	19	64			1.94	+ 0.6	9	5,807	nw.	49	se.	11	10	7	11	5.6	15.0	2.5
Durango	6,546	18	56	23.58	30.03	+ .03	30.4	+ 0.5	51	11	40	− 2	23	20	40	26	21	75			7.02	+ 5.6	16	3,040	nw.	20	se.	26	7	8	13	5.9	57.6	16.2
Grand Junction	4,608	43	51	25.34	29.96	− .08	36.2	+ 4.7	59	11	45	21	27	28	33	30	24	65			1.29	+ 0.7	14	2,906	nw.	24	s.	12	9	9	10	5.6	11.1	....
Northern Plateau.							**30.2**	**− 2.7**												**70**	**1.25**	**− 0.2**									**6.1**		
Boise	2,739	78	86	27.23	30.17	+ .05	30.0	− 3.8	50	11	38	14	3	22	29	27	21	69			0.92	− 0.7	12	3,437	se.	26	se.	12	5	12	11	6.3	9.1	T.
Lewiston	757	10	51	29.31	30.14	+ .03	34.8	− 1.4	49	1	42	18	28	28	24						0.53	− 0.8	9	4,096	e.	34	w.	2	7	7	14	6.3	3.4	....
Pocatello	4,477	46	54	25.48	30.16	+ .06	23.2	− 4.9	45	11	33	− 2	27	14	33	20	16	71			1.50	+ 0.6	9	4,648	se.	42	sw.	2	11	5	12	5.4	14.0	T.
Spokane	1,929	101	110	28.02	30.14	+ .05	30.1	0.0	44	10	37	13	16	23	25	27	21	69			1.08	− 0.8	11	4,190	s.	25	ne.	26	9	3	16	6.1	9.8	1.6
Walla Walla	1,000	71	79	29.05	30.15	+ .04	33.1	− 3.3	54	11	40	11	28	26	24	29	24	72			2.14	+ 0.6	10	3,756	s.	39	se.	12	9	5	14	6.3	17.0	3.5
N. Pacific Coast Region.							**39.2**	**− 1.5**												**79**	**2.58**	**− 2.9**									**6.0**		
North Head	211	11	56	29.88	30.12	+ .06	40.6	− 1.5	50	28	45	28	2	36	17	39	37	85			3.27	− 2.5	17	10,481	e.	84	se.	12	12	6	10	5.2	0.5	....
Port Crescent	259	8	53	29.79	30.08	+ .05	36.0	− 1.2	48	17	42	23	1	30	20						1.82	− 2.9	12	3,872	s.	36	ne.	26	3	14	11	6.0	1.9	....
Seattle	123	185	224	29.98	30.11	+ .05	39.8	− 0.7	51	8	45	27	2	34	20	37	32	76			1.42	− 2.4	12	6,023	se.	48	s.	12	4	10	14	7.1	3.6	....
Tacoma	213	113	120	29.87	30.11	+ .05	39.1	− 1.3	52	10	45	27	3	34	22	37	33	78			1.86	− 3.3	13	4,984	sw.	32	ne.	28	10	7	11	5.7	0.5	....
Tatoosh Island	86	7	57	29.95	30.05	+ .05	40.2	− 0.8	52	28	44	29	1	36	13	38	35	84			3.77	− 5.0	15	11,599	ne.	62	sw.	13	9	5	14	6.2	2.2	....
Portland, Oreg	153	68	106	29.95	30.12	+ .04	40.2	− 1.1	52	17	46	27	3	34	18	37	31	72			3.34	− 2.4	14	4,770	nw.	32	sw.	13	8	8	12	6.5	0.2	....
Roseburg	510	9	57	29.55	30.11	+ .01	38.8	− 3.8	57	21	48	22	27	30	30	36	32	77			2.61	− 2.0	14	2,260	s.	30	sw.	12	7	12	9	5.1	5.3	....
Mid. Pac. Coast Reg'n.							**46.5**	**− 3.2**												**75**	**2.77**	**− 1.4**									**4.6**		
Eureka	80	73	89	30.04	30.11	.00	43.4	− 3.4	57	1	50	30	27	37	23	41	38	82			3.75	− 3.3	13	5,198	n.	39	nw.	13	11	7	10	5.4	0.1	....
Mount Tamalpais	2,375	11	18	27.55	30.06	− .04	40.4	.....	58	18	45	28	14	36	17	37	33	81			3.87	− 1.8	11	11,427	nw.	66	nw.	25	12	4	12	5.3	4.5	2.4
Point Reyes Light	490	7	18	29.49	30.01	.....	47.6	.....	57	4	52	37	27	**44**	11						2.24	.....	12	14,082	nw.	83	nw.	25	14	3	11	4.7	T.	....
Red Bluff	332	50	56	29.71	30.07	− .04	45.8	− 3.5	62	3	53	29	14	38	28	40	32	62			2.20	− 1.4	9	4,974	nw.	40	n.	23	14	4	10	4.2	T.	....
Sacramento	69	106	117	30.00	30.07	− .02	46.9	− 3.3	63	22	54	32	14	40	24	44	41	81			1.88	− 1.3	12	5,757	se.	33	s.	10	16	3	9	4.2	.....	....
San Francisco	155	200	204	29.90	30.07	− .03	49.3	− 2.0	67	18	55	38	27	44	24	44	39	70			3.02	− 0.7	11	4,534	nw.	27	se.	28	15	4	9	4.3	T.	....
San Jose	141	12	110	29.91	30.06	.....	46.9	− 3.7	66	18	56	27	16	37	30						2.03	− 0.5	9	4,592	se.	35	nw.	25	15	1	12	4.6	.....	....
Southeast Farallon	30	9	17	30.04	30.07	.....	49.4	.....	58	4	52	39	27	47	11						2.67	− 1.1	11	11,482	nw.	62	nw.	25	14	5	9	4.2	.....	....
S. Pacific Coast Region.							**50.2**	**− 3.2**												**71**	**3.46**	**+ 1.0**									**4.3**		
Fresno	330	67	70	29.71	30.08	.00	47.4	− 1.8	69	2	57	29	15	37	28	42	36	68			1.14	− 0.2	7	3,287	nw.	25	sw.	28	17	6	5	3.3	T.	....
Los Angeles	338	159	191	29.68	30.04	− .02	52.5	− 1.6	75	22	60	39	27	45	29	**46**	39	66			2.91	0.0	9	5,332	ne.	30	n.	25	10	13	5	4.8	.....	....
San Diego	87	94	102	29.96	30.06	.00	52.2	− 2.4	70	22	59	34	16	45	26	48	43	74			4.92	+ 3.0	11	4,365	e.	26	w.	25	13	8	7	4.0	.....	....
San Luis Obispo	201	47	54	29.87	30.09	− .02	48.6	− 3.9	70	22	56	34	9	41	33	45	41	77			4.86	+ 1.3	12	3,598	w.	30	w.	25	11	6	11	5.1	.....	....
West Indies.																																	
Grand Turk	11	6	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
San Juan	82	48	90	29.93	30.02	− .03	74.2	.....	81	23	79	66	21	69	14	.....	.....	.....	.....	.....	2.22	− 0.2	16	7,223	ne.	30	n.	17	6	18	4	5.4	.....	.....
Panama.																																	
Christobal	17	5	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Culebra	404	4	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ancon	92	6	69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alhajuela	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bohio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gatun	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE II.—*Details of excessive precipitation, February, 1911.*

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.													
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Abilene, Tex.	18			0.88														0.43			
Albany, N. Y.	17			0.13														0.05			
Alpena, Mich.	16–17			0.79														*			
Amarillo, Tex.	17			1.61														0.23			
Anniston, Ala.	19	7.25 p. m.	D. N. p.m.	1.05	7.46 p. m.	8.21 p. m.	0.05	0.07	0.31	0.40	0.51	0.55	0.61	0.67							
Asheville, N. C.	4			0.63														0.35			
Atlanta, Ga.	6			0.48														0.24			
Atlantic City, N.J.	4			0.15														0.07			
Augusta, Ga.	11			1.00														0.26			
Baltimore, Md.	6			0.60														*			
Bentonville, Ark.	13			0.42														0.29			
Binghamton, N.Y.	17			0.28														0.10			
Birmingham, Ala.	19	5.50 p. m.	D. N. p.m.	0.72	6.01 p. m.	6.14 p. m.	0.01	0.38	0.45	0.49											
Bismarck, N. Dak.	31–1			0.45														*			
Block Island, R.I.	4			0.65														0.48			
Boise, Idaho.	2			0.19														0.06			
Boston, Mass.	3–4			0.95														†			
Buffalo, N. Y.	13–14			1.36†														*			
Burlington, Vt.	2			0.62														*			
Cairo, Ill.	7	7.00 p. m.	10.00 p. m.	0.42	7.02 p. m.	7.15 p. m.	0.01	0.05	0.23	0.35											
Canton, N. Y.	2			0.78														*			
Charles City, Iowa	13–14			1.08														*			
Charleston, S. C.	12			0.59														0.34			
Charlotte, N. C.	9			0.83														0.17			
Chattanooga, Tenn.	8			1.30														0.50			
Cheyenne, Wyo.	26			0.22														*			
Chicago, Ill.	5–6			0.89†														*			
Cincinnati, Ohio.	19			0.86†														*			
Cleveland, Ohio.	14			0.24														0.14			
Columbia, Mo.	18			1.67														*			
Columbia, S. C.	11			0.62														0.16			
Columbus, Ohio.	3			0.22														0.14			
Concord, N. H.	2–3			0.93														*			
Concordia, Kans.	16–17			1.92														*			
Corpus Christi, Tex.	19			0.32														0.21			
Davenport, Iowa.	16–17			1.34														*			
Del Rio, Tex.	17			1.60														0.73			
Denver, Colo.	25–26			0.34														*			
Des Moines, Iowa.	16–17			0.94														*			
Detroit, Mich.	6			1.23														†			
Devils Lake, N. D.	1			0.62														*			
Dodge City, Kans.	16–17			1.28														*			
Dubuque, Iowa.	16–17			1.34														*			
Duluth, Minn.	13–14			0.82														*			
Durango, Colo.	18–19			2.02														*			
Eastport, Me.	4			0.80														0.22			
Elkins, W. Va.	14			0.18														0.14			
El Paso, Tex.	17			0.55														0.11			
Erie, Pa.	14			0.80														0.18			
Escanaba, Mich.	14–15			0.63†														*			
Eureka, Cal.	10			1.67														0.30			
Evansville, Ind.	5			0.70														0.51			
Flagstaff, Ariz.	3–4			1.18														*			
Fort Smith, Ark.	15–16	6.51 p. m.	D. N. a. m.	1.73	10.52 p. m.	11.12 p. m.	0.92	0.09	0.24	0.42	0.51										
Fort Worth, Tex.	18			1.00														0.43			
Fresno, Cal.	3			0.50														0.10			
Galveston, Tex.	19			0.36														0.13			
Gd. Haven, Mich.	13–14			0.90														*			
Gd. Junction, Colo	4			0.22														*			
Gd. Rapids, Mich.	14			0.90														0.27			
Green Bay, Wis.	13–14			1.07†														*			
Hannibal, Mo.	5			0.71														*			
Harrisburg, Pa.	6–7			0.63														†			
Hartford, Conn.	3–4			1.36														*			
Hatteras, N. C.	7			0.22														0.16			
Havre, Mont.	24–25			0.40														*			
Helena, Mont.	2			0.07														*			
Houghton, Mich.	1–2			1.27														*			
Huron, S. Dak.	5			0.61														*			
Independence, Cal	4			0.29														0.13			
Indianapolis, Ind.	5–6			0.40														*			
Iola, Kans.	13			0.61														0.39			
Jacksonville, Fla.	9			0.13														0.04			
Jupiter, Fla.	27			0.07														0.04			
Kalispell, Mont.	24			0.36														*			
Kansas City, Mo.	13			1.45														0.66			
Keokuk, Iowa.	17			0.92														*			
Key West, Fla.	19			0.01														0.01			
Knoxville, Tenn.	8			2.03														0.71			
La Crosse, Wis.	14			0.49														0.14			
Lander, Wyo.	25–26			0.81														*			
La Salle, Ill.	5			1.12														*			
Lewiston, Idaho.	13			0.12†														0.06†			
Lexington, Ky.	6			0.49														0.23			
Lincoln, Nebr.	16–17			0.76†														*			
Little Rock, Ark.	7–8			0.73														0.39			
Los Angeles, Cal.	11			0.52														0.28			
Louisville, Ky.	6			0.74														0.42			
Lynchburg, Va.	8			0.39														0.09			
Macon, Ga.	20			0.52														0.49			
Madison, Wis.	16			1.28														0.32			
Marquette, Mich.	1–2			1.03														*			
Memphis, Tenn.	8			1.33														0.51			
Meridian, Miss.	19			0.57														0.44			
Milwaukee, Wis.	5–6			0.96														*			
Minneapolis, Minn	5–6			0.38														*			
Mobile, Ala.	4	D. N. a. m.	D. N. a. m.	1.17	4.08 a. m.	4.58 a. m.	0.03	0.12	0.17	0.27	0.32	0.48	0.71	0.82	0.92	0.98	1.08				
Modena, Utah.	27–28			0.66														*			
Montgomery, Ala.	19			0.64														0.44			
Moorhead, Minn.	1			0.32														*			

TABLE II.—*Details of excessive precipitation, February, 1911*—Continued.

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rate began.	Depths of precipitation (in inches) during periods of time indicated.												
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Mt. Tamalpais, Cal	12			0.87														0.21			
Mt. Weather, Va.	19–20			0.86														*			
Nantucket, Mass.	4			0.85														0.33			
Nashville, Tenn.	3	5.15 p. m.	9.10 p. m.	1.22	6.24 p. m.	6.58 p. m.	0.02	0.18	0.56	0.72	0.73	0.79	0.96	1.04							
New Haven, Conn	3–4			1.52														†			
New Orleans, La.	19			0.33														0.33			
New York, N. Y.	4			1.44														0.53			
Norfolk, Va.	8			0.54														0.17			
NorthHead, Wash.	17			0.40														0.14			
N. Platte, Nebr.	16			0.31														*			
Northfield, Vt.	6–7			0.57														*			
Oklahoma, Okla.	18			0.77														0.18			
Omaha, Nebr.	5			0.81														*			
Oswego, N. Y.	17			0.07														0.05			
Palestine, Tex.	18			1.43														0.50			
Park'burg, W.Va.	3–4			*0.50														0.21			
Pensacola, Fla.	9			0.24														0.17			
Peoria, Ill.	3			0.19														0.18			
Philadelphia, Pa.	4			1.21														*			
Phoenix, Ariz.	4			0.59														0.13			
Pierre, S. Dak.	5			0.36														*			
Pittsburg, Pa.	19–20			0.56														*			
Pocatello, Idaho.	4			0.35														*			
Pt. Reyes Lt., Cal.	10			0.56														0.25			
Pt. Huron, Mich.	17			0.42														0.15			
Portland, Me.	4			1.42														0.42			
Portland, Oreg.	13			0.57														0.14			
Providence, R. I.	4			0.78														0.32			
Pueblo, Colo.	18–19			0.38														*			
Raleigh, N. C.	8			0.69														0.31			
Rapid City, S.D.	25–26			0.28														*			
Red Bluff, Cal.	10			0.81														0.28			
Reno, Nev.	23			0.20														*			
Richmond, Va.	6			0.37														0.13			
Rochester, N. Y.	6–7			1.08														*			
Roseburg, Oreg.	12			0.41														0.12			
Roswell, N. Mex.	17			0.74														0.15			
Sacramento, Cal.	4			0.52														0.22			
St. Louis, Mo.	18–19			0.97														*			
St. Paul, Minn.	5–6			0.40														*			
S. Lk. City, Utah.	25			0.56														*			
San Antonio, Tex.	18			0.71														0.39			
San Diego, Cal.	11			0.85														0.54			
Sandusky, Ohio.	5–6			0.74														*			
San Francisco, Cal.	10			0.66														0.23			
San Jose, Cal.	10			0.45														0.17			
San Luis Obispo, Cal.	11			0.66														0.46			
Santa Fe, N Mex.	18			0.76														*			
Sault Ste Marie, Mich.	1–2			0.78														*			
Savannah, Ga.	11			0.46														0.17			
Scranton, Pa.	20			0.45														*			
Seattle, Wash.	24			0.16														0.11			
Sheridan, Wyo.	25–26			0.23														*			
Shreveport, La.	8			0.67														0.24			
Sioux City, Iowa.	5			1.10														*			
Southeast Farallon, Cal.	11			0.46														0.21			
Spokane, Wash.	24–25			0.41														*			
Springfield, Ill.	5–6			0.59														*			
Springfield, Mo.	18–19			1.48														*			
Syracuse, N. Y.	6–7			0.86														*			
Tacoma, Wash.	12			0.37														0.11			
Tampa, Fla.	20			0.04														0.03			
Tatoosh Island, Wash.	4			0.42														0.23			
Taylor, Tex.	19			0.57														0.26			
Thomasville, Ga.	9			0.24														0.15			
Toledo, Ohio.	5–6			1.07														*			
Tonopah, Nev.	3–4			0.36														*			
Topeka, Kans.	16–18	3.55 p. m.	6.30 p. m.	4.05	5.07 p. m.	5.47 p. m.	0.09	0.15	0.29	0.42	0.55	0.58	0.67	0.77	0.86						
Valentine, Nebr.	4–5			0.48														*			
Vicksburg, Miss.	14	4.00 a. m.	5.00 a. m.	0.48	4.11 a. m.	4.26 a. m.	0.02	0.09	0.30	0.35											
	27	6.55 a. m.	5.06 p m.	2.26	9.24 a. m.	9.39 a. m.	0.77	0.13	0.30	0.36											
Walla Walla, Wash.	1–2			0.81†														*			
Washington, D.C.	19–20			0.72														*			
Wichita, Kans.	16	12.20 p. m.	9.35 p. m.	1.73	3.55 p. m.	4.00 p. m.	0.19	0.25													
					7.28 p. m.	7.38 p. m.	0.99	0.10	0.33												
Williston, N. Dak.																					
Wilmington, N.C.	12			0.28														0.10			
Winnemucca, Nev.	11			0.05														*			
Wytheville, Va.	8			0.71														0.21			
Yankton, S. Dak.	5			1.02														*			
Yellowstone Park, Wyo.	2			0.32														*			

*Self-register not working. † Record incomplete. ‡ No precipitation occurred during month.

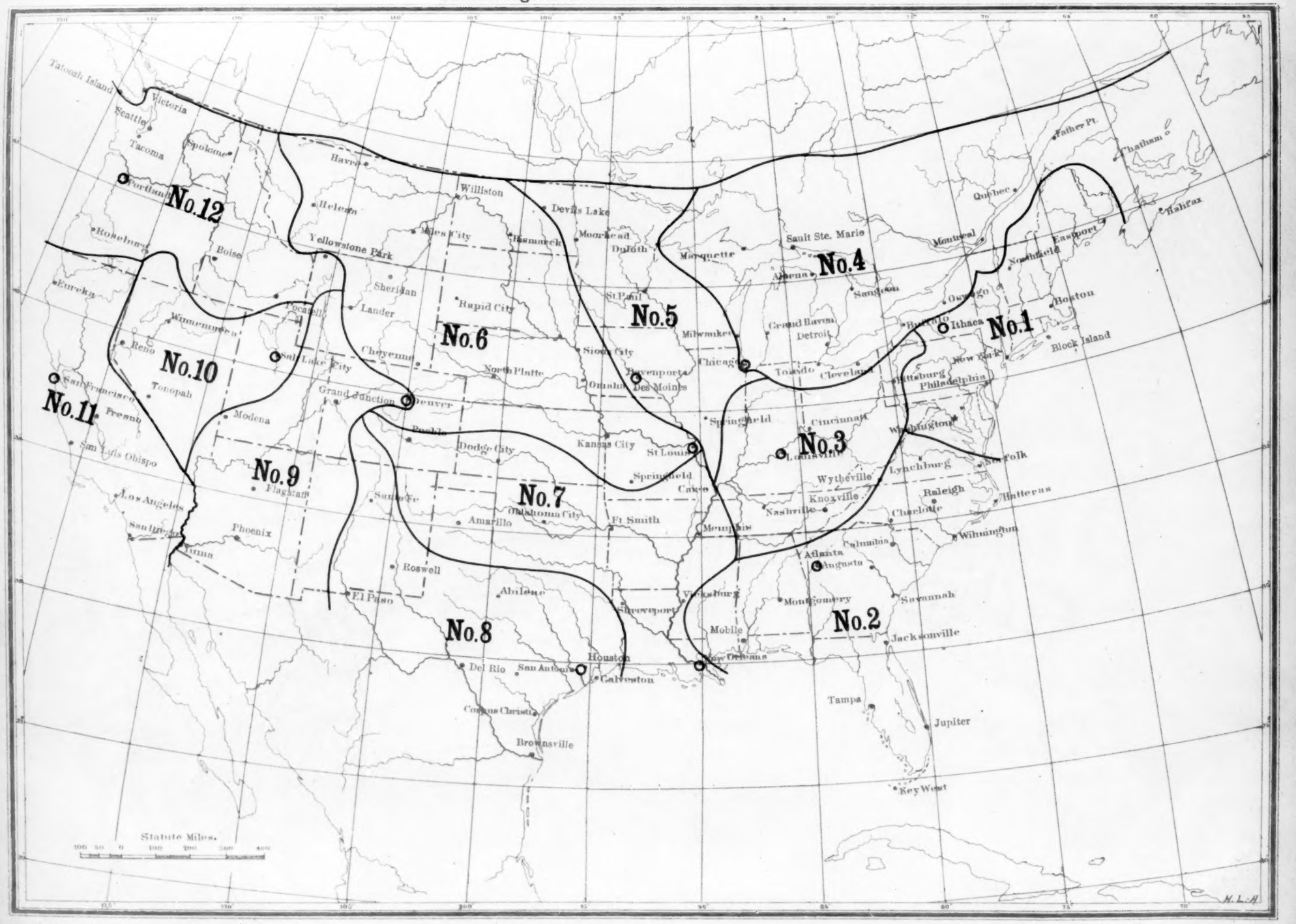
TABLE III.—*Data furnished by the Canadian Meteorological Service, February, 1911.*

Districts and stations.	Pressure.			Temperature.						Precipitation.		
	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Mean maximum.	Mean minimum.	Highest.	Lowest.	Total.	Departure from normal.	Total snowfall.
	Ins.	*Ins.*	*Ins.*	° *F.*	° *F.*	° *F.*	° *F.*	° *F*	° *F.*	*Ins.*	*Ins.*	*Ins.*
St. Johns, N. F.	29.57	29.71	−0.12	17.9	− 4.1	24.8	11.0	36	0	3.28	−1.63	24.0
Sydney, C. B. I.	29.88	29.92	.00	15.7	− 3.6	24.7	6.6	44	−13	3.39	−0.70	19.5
Halifax, N. S.	29.88	29.99	+ .04	17.7	− 4.7	27.0	8.4	47	− 5	4.80	−0.36	23.2
Grand Manan, N. B.	29.96	30.02	+ .04	20.1	− 3.3	27.7	12.5	47	− 2	2.44	−1.53	21.7
Yarmouth, N. S.	29.94	30.02	+ .03	20.9	− 4.9	27.4	14.4	44	1	2.67	−2.07	19.2
Charlottetown, P. E. I.	29.90	29.94	− .01	14.0	− 3.6	22.0	6.0	40	−10	1.65	−1.41	9.7
Chatham, N. B.	29.99	30.02	+ .06	11.2	− 1.3	23.3	− 0.9	42	−22	0.99	−2.17	9.0
Father Point, Que.	29.99	30.02	+ .04	5.4	− 6.1	15.2	− 4.4	32	−24	1.52	−0.69	15.2
Quebec, Que.	29.74	30.08	+ .09	8.2	− 3.6	16.6	− 0.2	39	−16	1.90	−1.37	17.7
Montreal, Que.	29.89	30.12	+ .10	12.4	− 2.1	19.9	5.0	43	− 8	3.29	+0.22	31.6
Stonecliffe, Ont.	29.42	30.06	+ .05	9.6	− 0.3	22.2	− 3.0	42	−28	1.84	−0.16	18.4
Ottawa, Ont.	29.85	30.20	+ .18	12.1	+ 0.4	21.1	3.1	39	−20	2.74	+0.05	25.2
Kingston, Ont.	29.80	30.14	+ .10	16.9	− 0.9	25.3	8.5	40	− 8	1.29	−1.25	11.8
Toronto, Ont.	29.70	30.10	+ .06	25.5	+ 4.0	32.2	18.7	48	5	2.12	−0.49	19.3
White River, Ont.	28.70	30.08	+ .06	7.9	+ 7.7	20.5	− 4.6	42	−42	0.20	−1.32	2.0
Port Stanley, Ont.	29.44	30.10	+ .04	26.9	+ 4.1	32.9	21.0	47	9	2.84	−0.37	9.5
Southampton, Ont.	29.36	.....	.....	24.5	+ 4.6	31.9	17.0	43	0	2.78	−0.12	14.1
Parry Sound, Ont.	29.37	30.11	+ .10	18.3	+ 4.0	27.3	9.3	40	−14	1.67	−1.25	12.0
Port Arthur, Ont.	29.39	30.13	+ .08	16.4	+10.0	26.4	6.5	44	−24	1.28	+0.38	12.8
Winnipeg, Man.	29.33	30.21	+ .11	6.5	+ 8.1	16.8	− 3.8	36	−35	0.71	−0.27	7.1
Minnedosa, Man.	28.27	30.21	+ .12	3.4	+ 6.1	14.2	− 7.4	31	−32	0.94	+0.33	9.4
Qu'Appelle, Sask.	27.78	30.17	+ .09	3.5	+ 4.1	13.4	− 6.5	32	−30	0.50	−0.23	5.0
Medicine Hat, Alberta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Swift Current, Sask.	27.49	30.23	+ .16	8.8	+ 0.8	17.9	− 0.3	31	−22	0.26	−0.48	2.6
Calgary, Alberta.	26.40	30.11	+ .12	14.6	+ 1.1	25.2	4.0	44	−22	0.56	−0.07	5.6
Banff, Alberta.	25.34	30.16	+ .18	14.2	− 5.0	26.1	2.2	36	−30	0.65	−0.27	6.5
Edmonton, Alberta.	27.70	30.11	+ .09	12.1	+ 3.8	26.5	− 2.3	52	−42	0.31	−0.36	3.1
Prince Albert, Sask.	28.40	30.05	− .04	1.4	+ 4.4	15.1	−12.4	38	−32	0.41	−0.28	4.1
Battleford Sask.	28.35	30.22	+ .13	−1.0	− 1.1	9.7	−11.7	39	−34	0.05	−0.32	0.5
Kamloops, B. C.	28.80	30.13	+ .17	22.6	− 5.7	30.8	14.5	42	−15	0.21	−0.58	1.9
Victoria, B. C.	29.97	30.07	+ .07	39.0	− 0.5	44.1	34.0	49	24	0.96	−3.14	T.
Barkerville, B. C.	25.60	30.05	+ .14	15.8	− 3.1	23.5	8.0	37	−29	2.05	−1.01	20.5
Dawson, Yukon.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hamilton, Bermuda.	30.00	30.17	+ .06	60.5	− 1.0	65.9	55.1	72	48	1.18	−3.26	.....

TABLE III.—*Data furnished by the Canadian Meteorological Service, February, 1911*—Continued.

Districts and stations.	Pressure.			Temperature.						Precipitation.		
	Station, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Mean maximum.	Mean minimum.	Highest.	Lowest.	Total.	Departure from normal.	Total snowfall.
	Ins.	*Ins.*	*Ins.*	° *F.*	° *F.*	° *F.*	° *F.*	° *F*	° *F.*	*Ins.*	*Ins.*	*Ins.*
Parry Sound, Ont.	29.37	30.11	+ .10	18.3	+ 4.0	27.3	9.3	40	−14	1.67	−1.25	12.0
Port Arthur, Ont.	29.39	30.13	+ .08	16.4	+10.0	26.4	6.5	44	−24	1.28	+0.38	12.8
Winnipeg, Man.	29.33	30.21	+ .11	6.5	+ 8.1	16.8	− 3.8	36	−35	0.71	−0.27	7.1
Minnedosa, Man.	28.27	30.21	+ .12	3.4	+ 6.1	14.2	− 7.4	31	−32	0.94	+0.33	9.4
Qu'Appelle, Sask.	27.78	30.17	+ .09	3.5	+ 4.1	13.4	− 6.5	32	−30	0.50	−0.23	5.0
Medicine Hat, Alberta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Swift Current, Sask.	27.49	30.23	+ .16	8.8	+ 0.8	17.9	− 0.3	31	−22	0.26	−0.48	2.6
Calgary, Alberta.	26.40	30.11	+ .12	14.6	+ 1.1	25.2	4.0	44	−22	0.56	−0.07	5.6
Banff, Alberta.	25.34	30.16	+ .18	14.2	− 5.0	26.1	2.2	36	−30	0.65	−0.27	6.5
Edmonton, Alberta.	27.70	30.11	+ .09	12.1	+ 3.8	26.5	− 2.3	52	−42	0.31	−0.36	3.1
Prince Albert, Sask.	28.40	30.05	− .04	1.4	+ 4.4	15.1	−12.4	38	−32	0.41	−0.28	4.1
Battleford Sask.	28.35	30.22	+ .13	−1.0	− 1.1	9.7	−11.7	39	−34	0.05	−0.32	0.5
Kamloops, B. C.	28.80	30.13	+ .17	22.6	− 5.7	30.8	14.5	42	−15	0.21	−0.58	1.9
Victoria, B. C.	29.97	30.07	+ .07	39.0	− 0.5	44.1	34.0	49	24	0.96	−3.14	T.
Barkerville, B. C.	25.60	30.05	+ .14	15.8	− 3.1	23.5	8.0	37	−29	2.05	−1.01	20.5
Dawson, Yukon.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hamilton, Bermuda.	30.00	30.17	+ .06	60.5	− 1.0	65.9	55.1	72	48	1.18	−3.26	.....

Climatological Districts of the United States.



106 Climatological Sections in the United States.

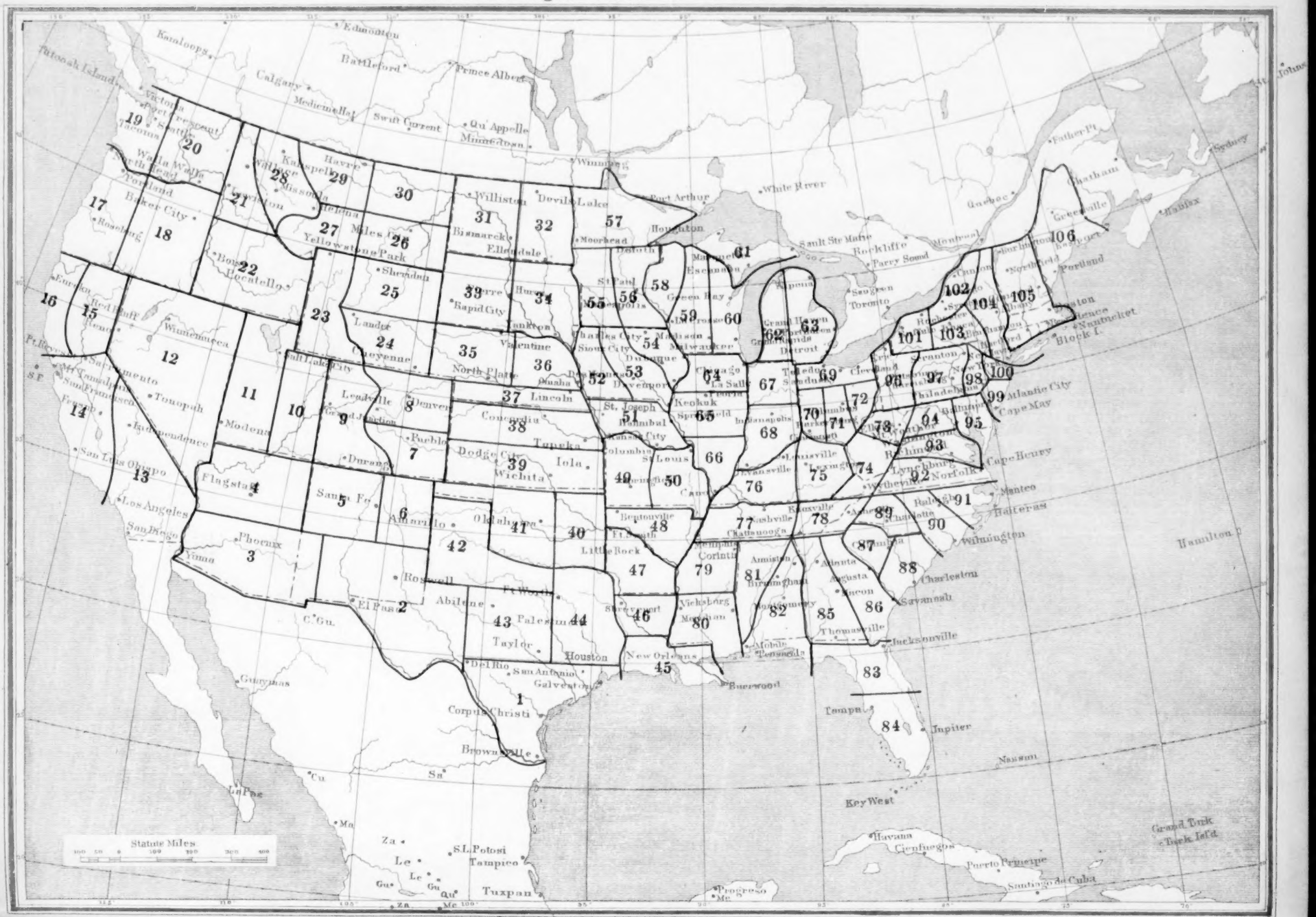


Chart I. Hydrographs of Several Principal Rivers, February, 1911.

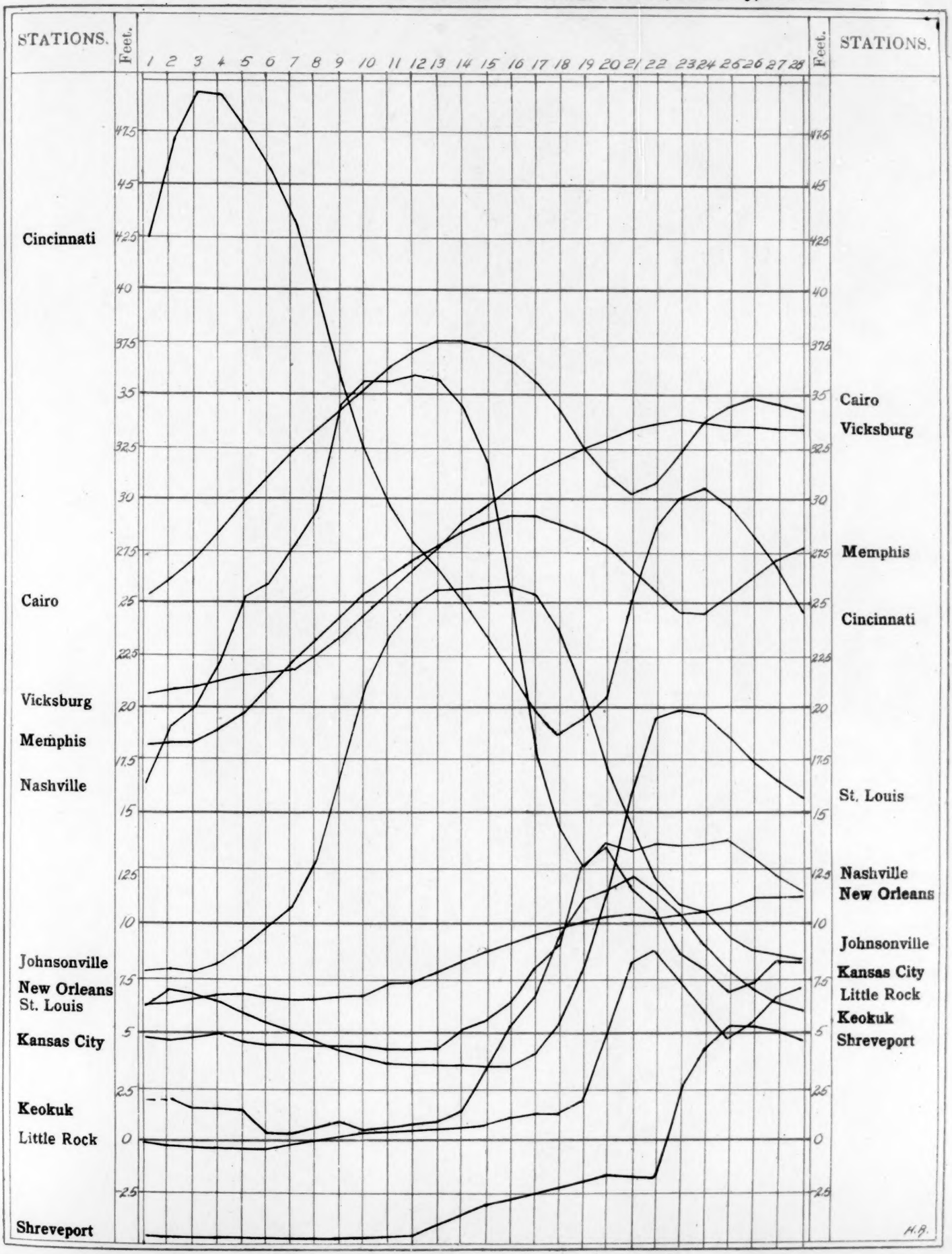


Chart II. Tracks of Centers of High Areas, February, 1911.

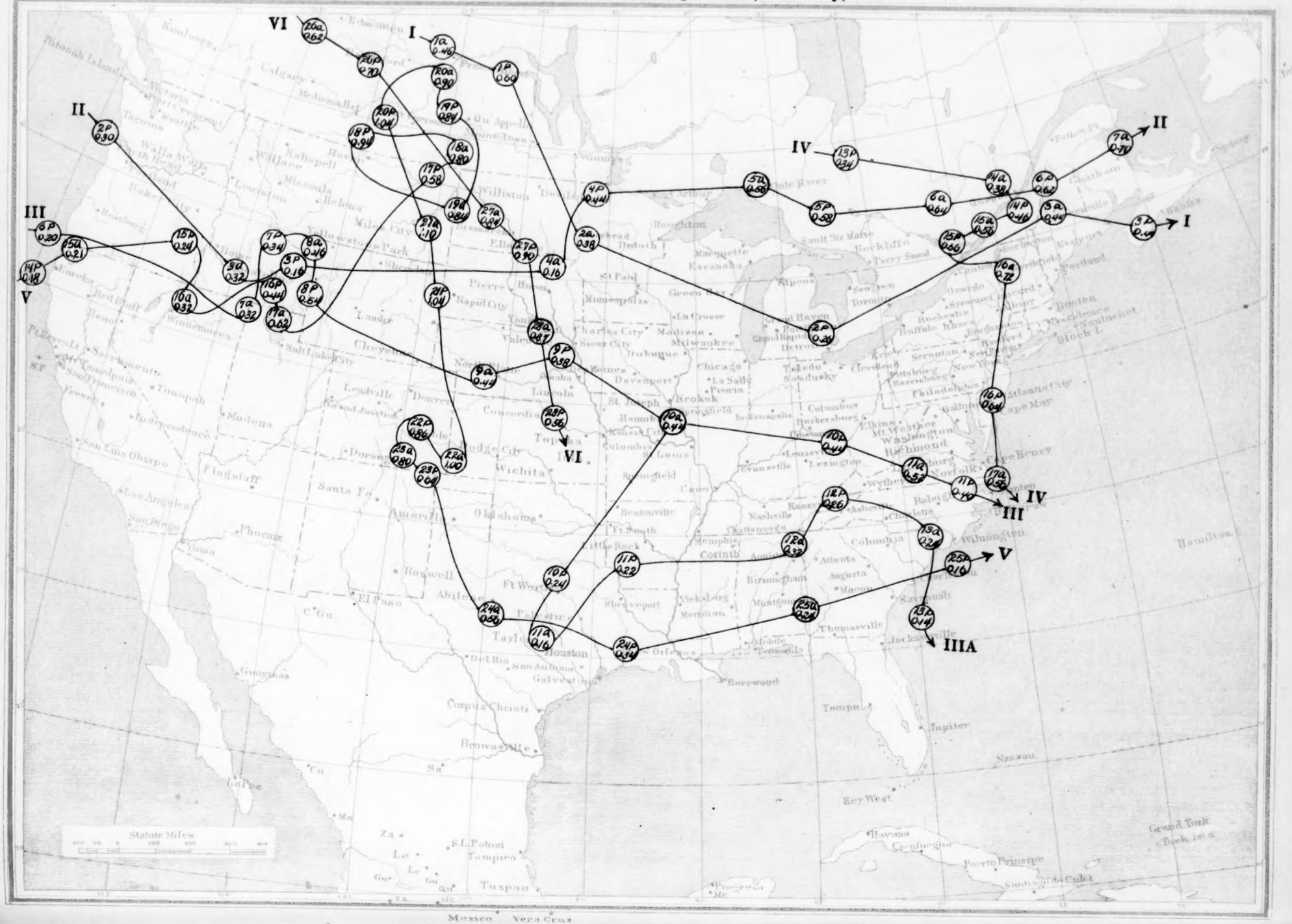


Chart III. Tracks of Centers of Low Areas, February, 1911.

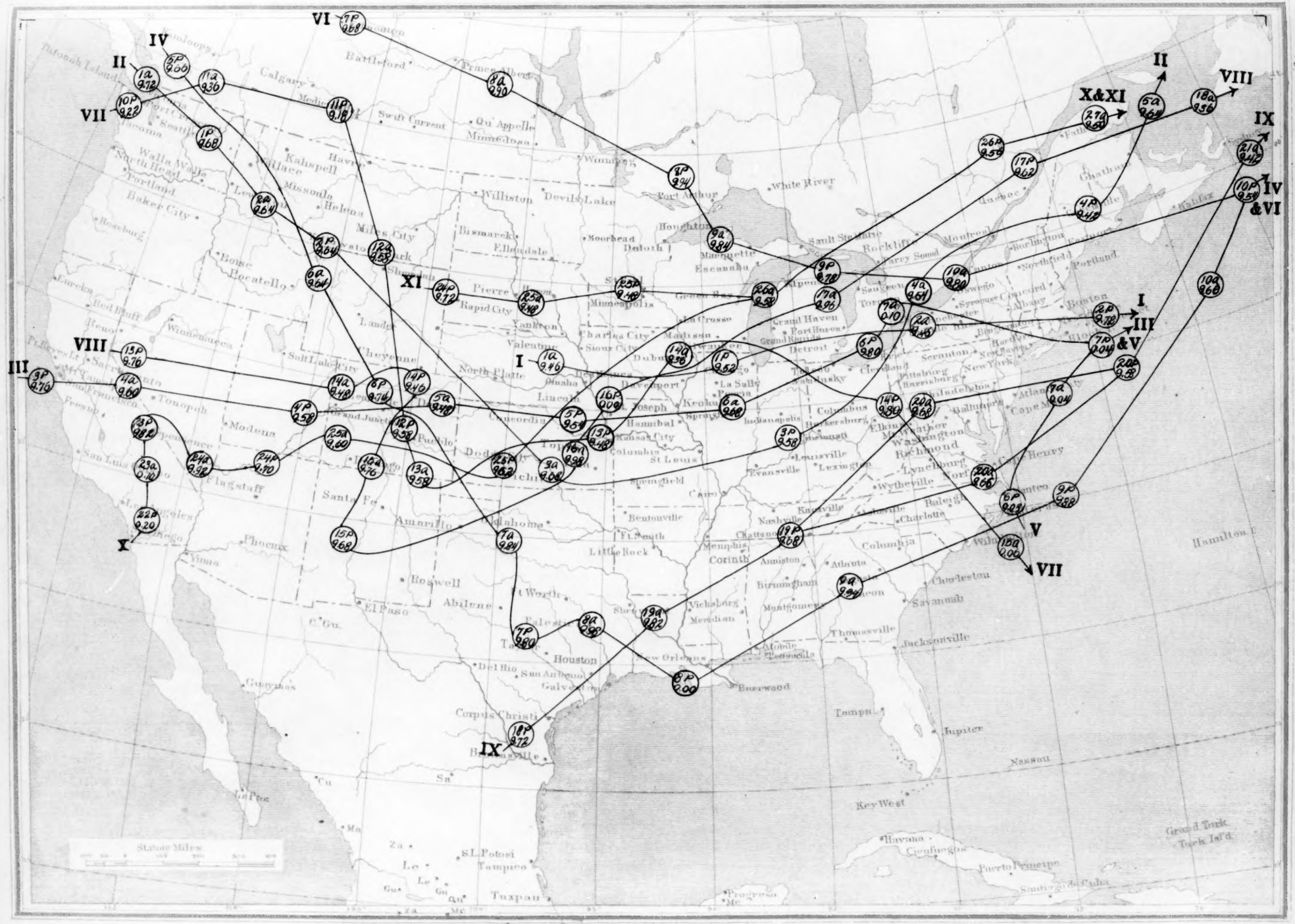


Chart IV. Departure of the Mean Temperature from the Normal, February, 1911.

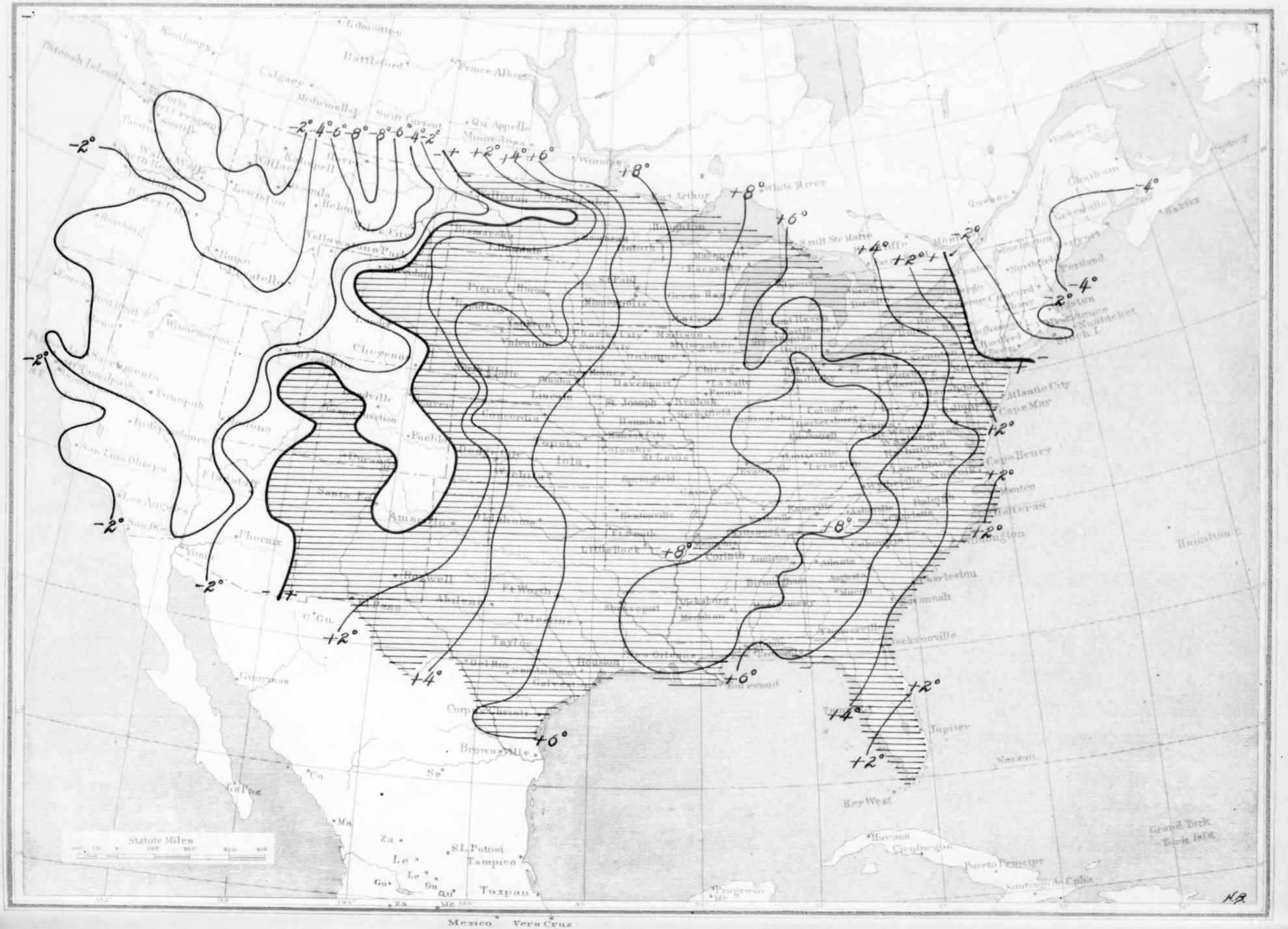


Chart V. Total Precipitation, February, 1911.

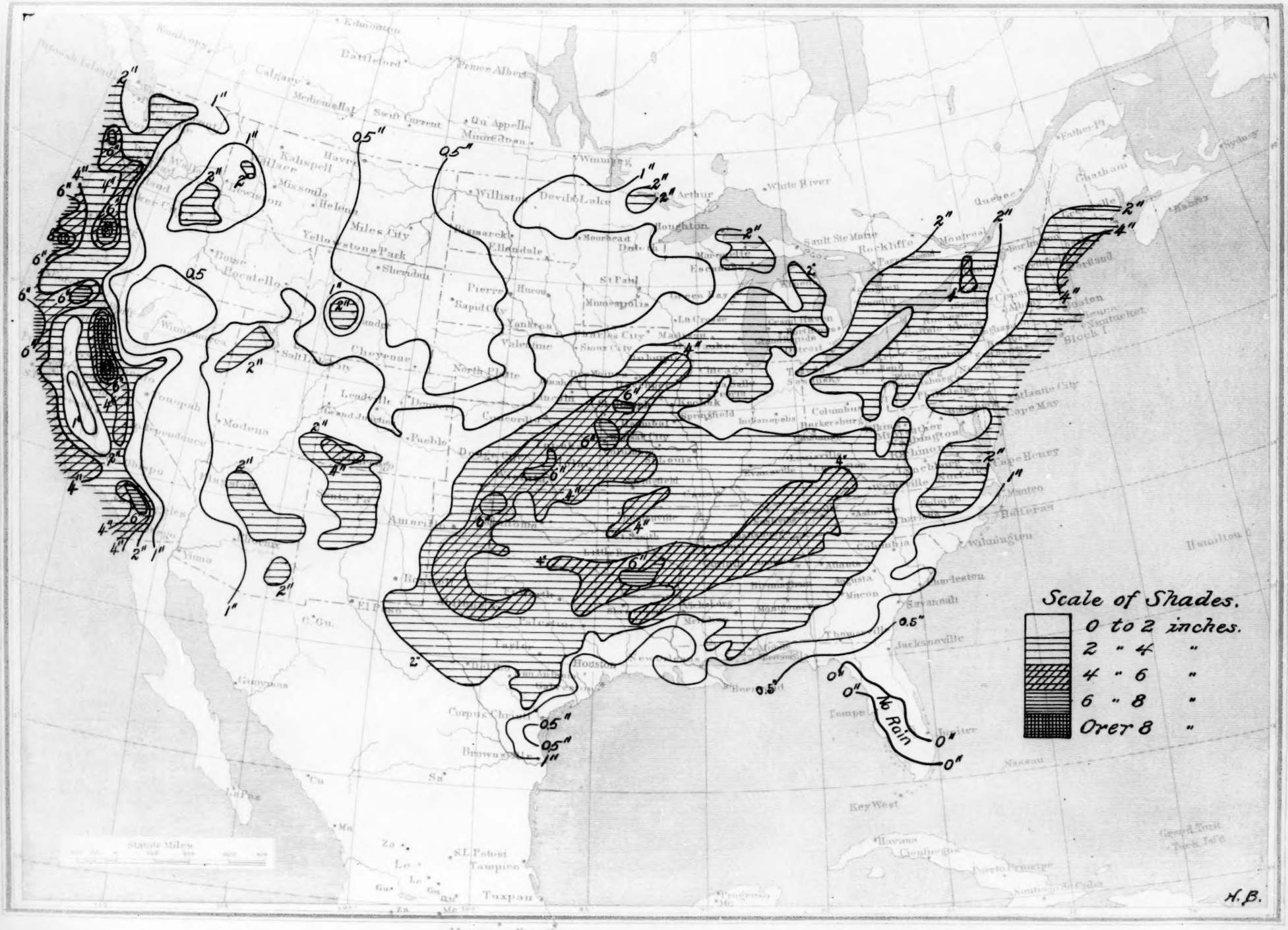


Chart VI. Percentage of Clear Sky between Sunrise and Sunset, February, 1911.

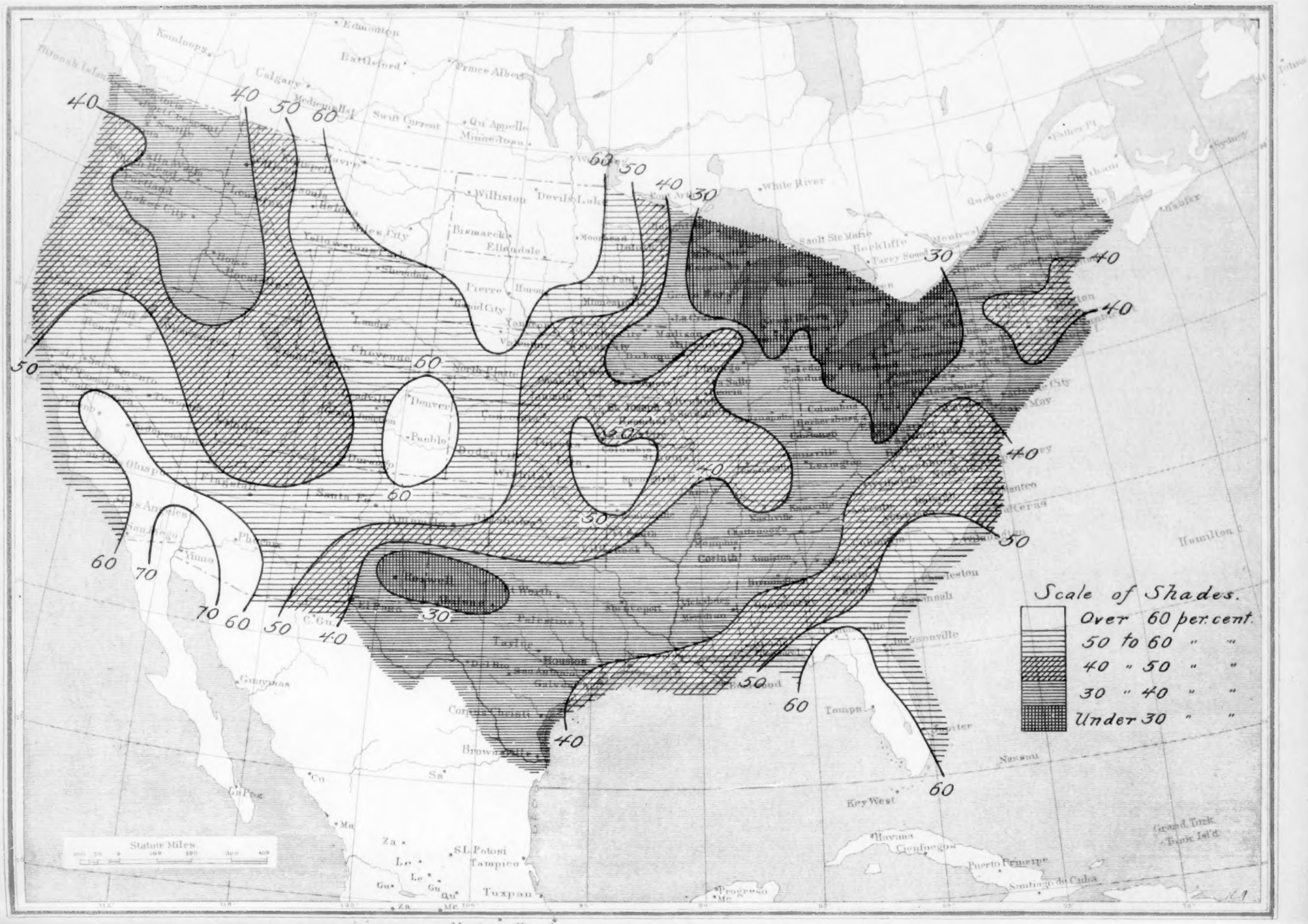


Chart VII. Isobars and Isotherms at Sea Level; Prevailing Winds, February, 1911.

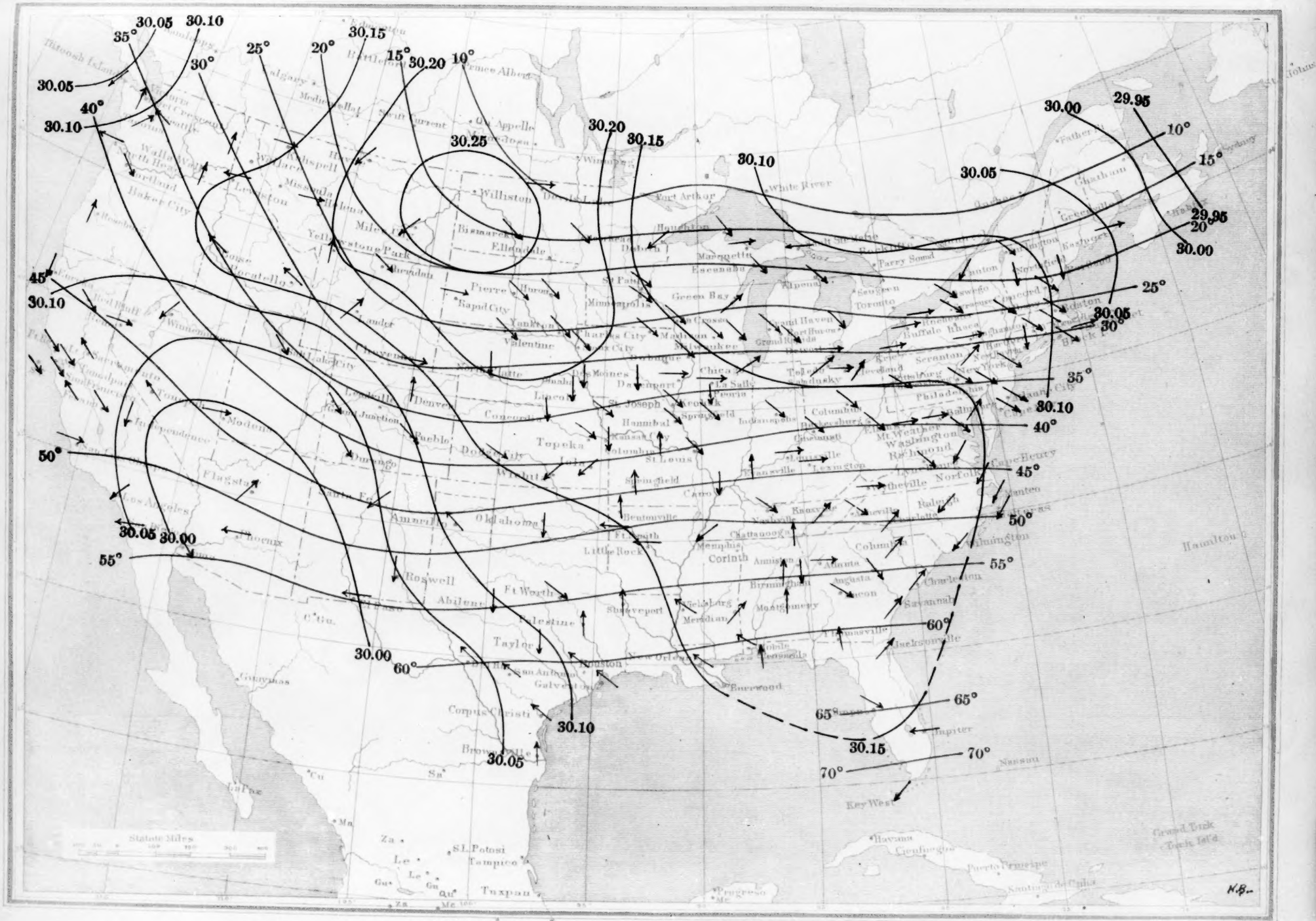
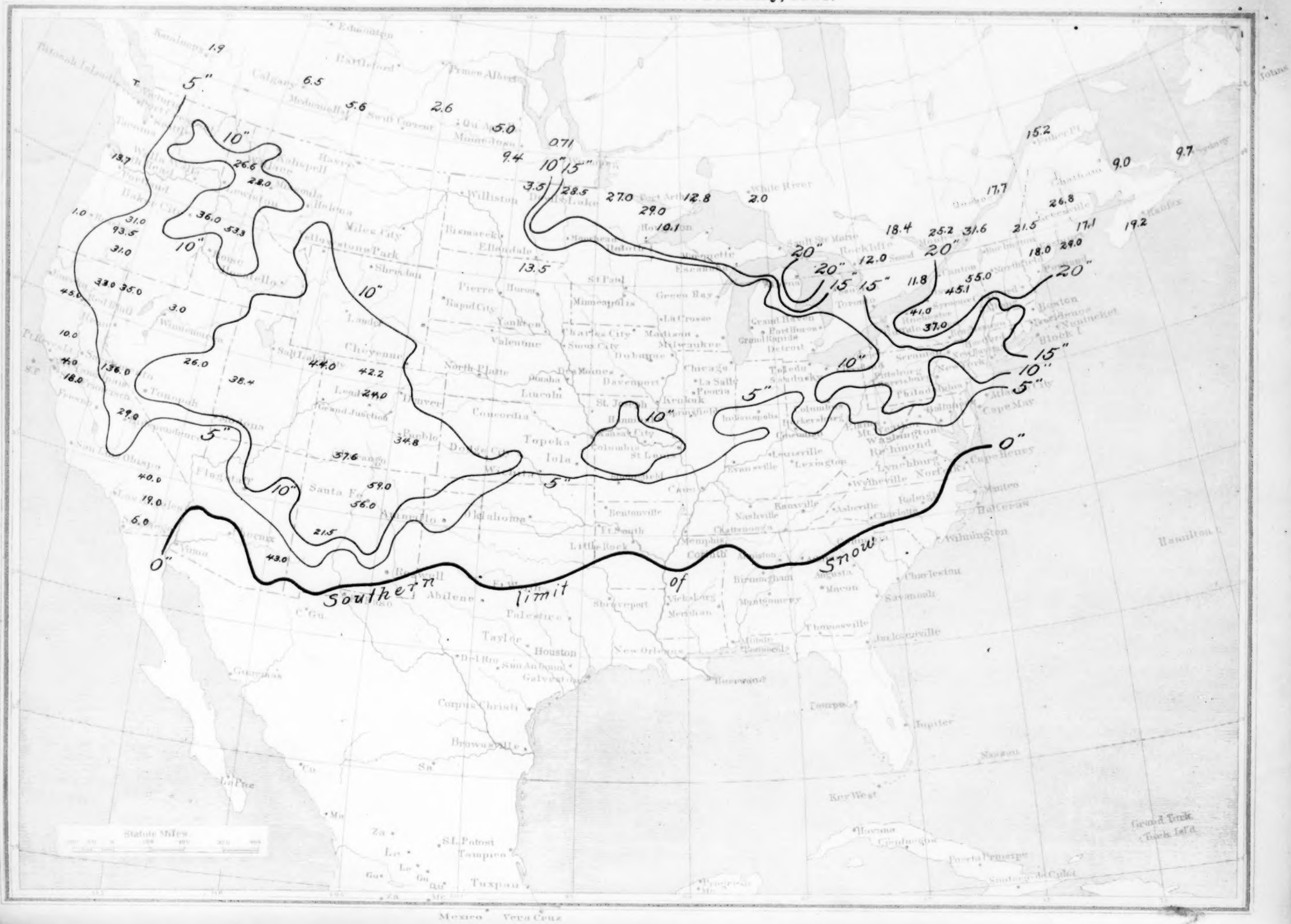



Chart VIII. Total Snowfall for February, 1911.